RODGERS
Our Passion is Building®

Submittal Record

Rodgers Builders, Inc.
PO Box 18446 (28218)
5701 North Sharon Amity Road
Charlotte, NC 28215

rodgersbuilders.com
704 537 6044 TELEPHONE
704 535 0055 FAX

Architect: YCH Architects

Project: Coltrane-Webb - Beverly Hills Elem School **Rodgers Project #:** 2843

Form of Submittal

- [x] Product Data
- [x] Shop Drawings
- [ ] Mix Designs
- [ ] MSDS Sheets
- [ ] Physical Samples
- [ ] Manufacturer's Certification
- [ ] Test Reports
- [ ] Installation Instructions
- [ ] Letter of Affidavit / Compliance
- [ ] Welding Certificates
- [ ] Sample Warranty
- [ ] Other (Specify) - _____

Submittal No. 23 36 00 - 001.1

Item: VAV Product Data & Shop Drawings R1

Drawing Number:

Spec. Section & Package No.: 233600

Manufacturer: Trane

Brand:

Submitted By: Superior Mechanical Systems

Review Due Date: 03/18/2025

See Pg. 3 for A/E Stamp of Approvals

Rodgers Stamp

Rodgers Builders, Inc.

___ No Exception Taken ___ Make Corrections Noted

___ Rejected ___ Revise and Resubmit

___ Submit Specified Item ✘ Reviewed

Corrections and comments are only for general conformance with the design concepts of the project and general compliance with the information given in the contract documents. Action shown is subject to the requirements of the plans and specifications. This review does not relieve the subcontractor/vendor from compliance with requirements of the drawings and specifications. Subcontractor /vendor is responsible for dimensions which shall be confirmed and correlated at the job site, fabrication process, and techniques of construction: coordination of their work with that of all other trades and the satisfactory performance of their work.

Colton Meyer — By

03/04/2025 — Date

No. 23 36 00 - 001.1

A/E Stamp

Re-Submittal #1

Prepared For:
Superior Mechanical
Attn: Ben Wyke

Engineer:
Optima Engineering
Steve Daley, P.E.

Date: *March 01, 2025*

Job Name:
CCS Coltrane Webb Beverly Hills Replacement ES

Opportunity ID: *7927867*

Trane U.S. Inc. is pleased to provide the following submittal for your review and approval.

Product Summary

Qty	Product
88 -	Variable Air Volume Single Duct Terminal Units

Original Notes: (still applicable)

1. This submittal is based on mechanical specifications and drawings sealed 10-21-2024.

2. Trane VAV single duct boxes are "universal" and can be rotated (flipped) 180 degrees in order to obtain right or left hand controls without affecting the operation of box. Note: The HW coils can also be rotated but the piping connections will remain the same, i.e., entering - leaving.

3. All controls shall be provided and field installed by others. The boxes will be provided with shaft and control enclosures only.

4. Flow rates for hot water coils have been adjusted as required in an attempt to match scheduled heating performance values as closely as possible without exceeding critical design criteria; i.e., WPD, APD, acoustics, etc. Engineer shall confirm these selections are acceptable.

5. Mechanical contractor shall confirm all unit counts and electrical requirements prior to ordering equipment.

6. The following items are not included by Trane unless otherwise noted:

Controls, i.e., actuators, end devices, zone sensors, etc.
Control wiring
External isolators or hangers
Equipment startup
Piping packages
Hot water control valves
Seismic restraints

Resubmittal #1 Note:

Per engineer's returned comments dated 2-12-2025, total hot water flow for terminal boxes has been adjusted to =/- 10% of equipment schedule total.

Jeff Auten
Trane U.S. Inc.
4501 South Tryon Street
Charlotte, NC 28217
Office Phone: (704) 525-9600

The attached information describes the equipment we propose to furnish for this project and is submitted for your approval.
Submittal acceptance and return is a critical step, so please ensure submittals are returned with approval to release to production within 14 days of submittal date.

Table of Contents

☐ NO EXCEPTIONS TAKEN
☒ EXCEPTIONS INDICATED
☐ REVISE AND RESUBMIT
☐ REJECTED; RESUBMIT

REVIEWED ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE VERIFIED AND CORRELATED AT THE SITE; FOR QUANTITY VERIFICATION; FOR INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR THE MEANS, METHODS, TECHNIQUES OR SEQUENCES AND PROCEDURES OF CONSTRUCTION; AND FOR COORDINATION OF THE WORK OF ALL TRADES.

YATES-CHREITZBERG-HUGHES ARCHITECTS
7035 NORTHWINDS DR. NW
CONCORD, NORTH CAROLINA 28027

BY: JRS DATE: 03/13/2025

Per Optima

OPTIMA ENGINEERING, P.A.
SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. MECHANICAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CORRECTNESS, DIMENSIONS, DETAILS, QUANTITIES AND ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT, INCLUDING ELECTRICAL CHANGES, MAINTENANCE ACCESS, CLEARANCES, BUILDING ALTERATIONS, PIPING, REPLACEMENT OF OTHER SYSTEM COMPONENTS, ETC.

NO EXCEPTION TAKEN	
APPROVED AS NOTED	X
REVISE AND RESUBMIT	
REJECTED	

Reviewed By: Kelsey Sheehan Date: 03/10/2025

OPTIMA:
- MINIMUM INLET PRESSURE TO TERMINAL UNITS SHALL BE 1.0" W.G.
- MAXIMUM PRESSURE DROP THROUGH TERMINAL UNITS SHALL BE 0.5" S.P.
- SEE COMMENTS THROUGHOUT

Tag Data - Variable Air Volume Single Duct Terminal Units (Qty: 88)

Item	Tag(s)	Qty	Description	Model Number
A1	VAV-1.1	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A2	VAV-1.2, VAV-1.6	2	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A3	VAV-1.3	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A4	VAV-1.4, VAV-1.11	2	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A5	VAV-1.5	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A6	VAV-1.7	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A7	VAV-1.8, VAV-1.10	2	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*1L1W
A8	VAV-1.9	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A9	VAV-1.12, VAV-2.14	2	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A10	VAV-1.13, VAV-2.15, VAV-3.18, VAV-4.15	4	Variable Air Volume Single Duct Terminal	VCCF08--*M0ENCLD**0*0L1W
A11	VAV-2.1	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A12	VAV-2.2	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A13	VAV-2.3	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A14	VAV-2.4	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A15	VAV-2.5	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A16	VAV-2.6	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A17	VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12	4	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*1L1W
A18	VAV-2.8, VAV-2.10, VAV-2.13	3	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A19	VAV-2.16	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A20	VAV-3.1	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A21	VAV-3.2	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A22	VAV-3.3	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A23	VAV-3.4	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A24	VAV-3.5	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A25	VAV-3.6, VAV-3.10, VAV-3.12	3	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A26	VAV-3.7, VAV-3.13	2	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A27	VAV-3.8, VAV-3.14	2	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A28	VAV-3.9, VAV-3.15	2	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A29	VAV-3.11	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A30	VAV-3.16	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A31	VAV-3.17	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A32	VAV-4.1	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A33	VAV-4.2	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A34	VAV-4.3	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A35	VAV-4.4	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A36	VAV-4.5	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A37	VAV-4.6, VAV-4.11	2	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A38	VAV-4.7, VAV-4.9	2	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A39	VAV-4.8	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A40	VAV-4.10	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A41	VAV-4.12	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A42	VAV-4.13	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A43	VAV-4.14	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A44	VAV-4.16	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A45	VAV-8.1, VAV-8.2, VAV-8.6	3	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A46	VAV-8.3	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A47	VAV-8.4	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A48	VAV-8.5	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A49	VAV-9.1	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A50	VAV-9.2	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A51	VAV-9.3	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*2L1W
A52	VAV-9.4	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A53	VAV-9.5	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A54	VAV-9.6	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W

A55	VAV-9.7	1	Variable Air Volume Single Duct Terminal	VCWF12--*M0ENCLD**0*2L1W
A56	VAV-10.1	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A57	VAV-10.2	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A58	VAV-10.3	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A59	VAV-10.4	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A60	VAV-10.5	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A61	VAV-10.6	1	Variable Air Volume Single Duct Terminal	VCWF10--*M0ENCLD**0*1L1W
A62	VAV-10.7	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A63	VAV-10.8	1	Variable Air Volume Single Duct Terminal	VCWF05--*M0ENCLD**0*1L1W
A64	VAV-10.9	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A65	VAV-10.10	1	Variable Air Volume Single Duct Terminal	VCWF06--*M0ENCLD**0*1L1W
A66	VAV-10.11	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W
A67	VAV-10.12	1	Variable Air Volume Single Duct Terminal	VCWF08--*M0ENCLD**0*1L1W

Product Data - Variable Air Volume Single Duct Terminal Units
All Units

Foil faced insulation - 1"
Shaft only with control enclosure
Same side coil connections and control connections
Standard air leakage
No unit controller
120/24 volt transformer
Disconnect switch
5-year parts warranty, entire unit

Item: A1, A5, A12, A16, A19, A34, A44, A49, A56, A57, A66, A67 Qty: 12 Tag(s): VAV-1.1, VAV-1.5, VAV-2.2, VAV-2.6, VAV-2.16, VAV-4.3, VAV-4.16, VAV-9.1, VAV-10.1, VAV-10.2, VAV-10.11, VAV-10.12

Single duct with hot water heat
8" inlet size
1 row hot water coil

Item: A2, A21, A24, A27, A32, A33, A37, A50, A61 Qty: 12 Tag(s): VAV-1.2, VAV-1.6, VAV-3.2, VAV-3.5, VAV-3.8, VAV-3.14, VAV-4.1, VAV-4.2, VAV-4.6, VAV-4.11, VAV-9.2, VAV-10.6

Single duct with hot water heat
10" inlet size
1 row hot water coil

Item: A3, A14, A28, A29, A39, A41, A51 Qty: 8 Tag(s): VAV-1.3, VAV-2.4, VAV-3.9, VAV-3.15, VAV-3.11, VAV-4.8, VAV-4.12, VAV-9.3

Single duct with hot water heat
10" inlet size
2 row hot water coil

Item: A4, A6, A8, A9, A15, A18, A23, A25, A26, A30, A31, A35, A36, A38, A40, A42, A43, A45, A52, A54, A55 Qty: 31 Tag(s): VAV-1.4, VAV-1.11, VAV-1.7, VAV-1.9, VAV-1.12, VAV-2.14, VAV-2.5, VAV-2.8, VAV-2.10, VAV-2.13, VAV-3.4, VAV-3.6, VAV-3.10, VAV-3.12, VAV-3.7, VAV-3.13, VAV-3.16, VAV-3.17, VAV-4.4, VAV-4.5, VAV-4.7, VAV-4.9, VAV-4.10, VAV-4.13, VAV-4.14, VAV-8.1, VAV-8.2, VAV-8.6, VAV-9.4, VAV-9.6, VAV-9.7

Single duct with hot water heat
12" inlet size
2 row hot water coil

Item: A7, A17 Qty: 6 Tag(s): VAV-1.8, VAV-1.10, VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12

Single duct with hot water heat
12" inlet size
1 row hot water coil

Item: A10 Qty: 4 Tag(s): VAV-1.13, VAV-2.15, VAV-3.18, VAV-4.15

Single duct cooling only terminal
8" inlet size

Item: A11, A46, A47, A48, A53, A58, A59, A62, A63 Qty: 9 Tag(s): VAV-2.1, VAV-8.3, VAV-8.4, VAV-8.5, VAV-9.5, VAV-10.3, VAV-10.4, VAV-10.7, VAV-10.8

Single duct with hot water heat
5" inlet size
1 row hot water coil

Item: A13, A20, A22, A60, A64, A65 Qty: 6 Tag(s): VAV-2.3, VAV-3.1, VAV-3.3, VAV-10.5, VAV-10.9, VAV-10.10

Single duct with hot water heat
6" inlet size
1 row hot water coil

Performance Data - Variable Air Volume Single Duct Terminal Units

Tags	VAV-1.1	VAV-1.2, VAV-1.6	VAV-1.3	VAV-1.4, VAV-1.11	VAV-1.5	VAV-1.7
Design cooling airflow (cfm)	490	900	1015	1525	470	1535
Min cooling airflow (cfm)	130	230	260	390	120	390
Valve heating airflow (cfm)	250	450	510	770	240	770
Cooling inlet diameter	8"	10"	10"	12"	8"	12"
Cooling inlet velocity (ft/min)	1404	1650	1861	1942	1346	1954
APD @ cooling airflow (in H2O)	0.150	0.170	0.410	0.450	0.140	0.460
Operating weight (lb)	27.5	37.6	41.8	52.5	27.5	52.5
Discharge valve - NC	30	30	27	29	29	29
Radiated valve - NC	17	21	19	15	15	15
Coil heating capacity (MBh)	12.10	19.53	23.61	37.24	11.24	39.66
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	99.64	95.01	97.69	99.60	98.18	102.49
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	155.82	147.48	120.94	130.34	150.05	133.34
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.50	0.60	0.40	0.75	0.38	0.85
Heating flow rate (gpm)	1.00	1.20	0.80	1.50	0.75	1.70
Coil fluid PD (ft H2O)	2.21	4.20	0.12	0.14	1.34	0.17
Main coil rows	1 ROW	1 ROW	2 ROW	2 ROW	1 ROW	2 ROW

Tags	VAV-1.8, VAV-1.10	VAV-1.9	VAV-1.12, VAV-2.14	VAV-1.13, VAV-2.15, VAV-3.18, VAV-4.15	VAV-2.1	VAV-2.2
Design cooling airflow (cfm)	1200	1235	1650	500	240	420
Min cooling airflow (cfm)	300	310	420	0	60	110
Valve heating airflow (cfm)	600	620	830	0	120	210
Cooling inlet diameter	12"	12"	12"	8"	5"	8"
Cooling inlet velocity (ft/min)	1528	1572	2101	1432	1760	1203
APD @ cooling airflow (in H2O)	0.160	0.330	0.510	0.030	0.080	0.120
Operating weight (lb)	47.0	52.5	52.5	22.0	25.2	27.5
Discharge valve - NC	30	28	30	20	28	29
Radiated valve - NC	18	<15	17	15	15	15
Coil heating capacity (MBh)	26.27	27.32	38.11	-	6.65	10.09
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	95.37	95.63	97.34	55.00	106.12	99.31
Heating ent fluid temp (F)	180.00	180.00	180.00	-	180.00	180.00
Heating lvg fluid temp (F)	149.12	125.34	129.18	-	153.42	146.38
Fluid type	Water	Water	Water	-	Water	Water
Heating Cv (Number)	0.85	0.50	0.75	-	0.25	0.30
Heating flow rate (gpm)	1.70	1.00	1.50	-	0.50	0.60
Coil fluid PD (ft H2O)	1.65	0.07	0.14	-	0.50	0.91
Main coil rows	1 ROW	2 ROW	2 ROW	-	1 ROW	1 ROW

Tags	VAV-2.3	VAV-2.4	VAV-2.5	VAV-2.6	VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12	VAV-2.8, VAV-2.10, VAV-2.13
Design cooling airflow (cfm)	310	1050	1345	520	1240	1540
Min cooling airflow (cfm)	80	270	340	130	310	390
Valve heating airflow (cfm)	160	530	680	260	620	770
Cooling inlet diameter	6"	10"	12"	8"	12"	12"
Cooling inlet velocity (ft/min)	1579	1925	1713	1490	1579	1961
APD @ cooling airflow (in H2O)	0.180	0.440	0.370	0.160	0.170	0.460
Operating weight (lb)	25.2	41.8	52.5	27.5	47.0	52.5
Discharge valve - NC	28	27	29	30	30	29
Radiated valve - NC	16	19	15	17	19	15
Coil heating capacity (MBh)	8.25	23.87	32.35	12.09	28.49	39.66
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	102.56	96.53	98.87	97.86	97.37	102.49
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	159.40	120.30	128.23	153.17	156.29	133.34
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.40	0.40	0.63	0.45	1.20	0.85
Heating flow rate (gpm)	0.80	0.80	1.25	0.90	2.40	1.70
Coil fluid PD (ft H2O)	1.12	0.12	0.10	1.84	3.07	0.17
Main coil rows	1 ROW	2 ROW	2 ROW	1 ROW	1 ROW	2 ROW

Tags	VAV-2.16	VAV-3.1	VAV-3.2	VAV-3.3	VAV-3.4	VAV-3.5
Design cooling airflow (cfm)	500	395	990	305	1600	935
Min cooling airflow (cfm)	130	100	250	80	400	240
Valve heating airflow (cfm)	250	200	500	160	800	470
Cooling inlet diameter	8"	6"	10"	6"	12"	10"
Cooling inlet velocity (ft/min)	1432	2012	1815	1553	2037	1714
APD @ cooling airflow (in H2O)	0.150	0.270	0.200	0.170	0.490	0.180
Operating weight (lb)	27.5	25.2	37.6	25.2	52.5	37.6
Discharge valve - NC	30	30	30	28	29	30
Radiated valve - NC	17	19	22	16	17	22
Coil heating capacity (MBh)	11.26	9.03	21.66	7.50	37.69	21.03
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	96.54	96.63	94.94	98.25	98.44	96.25
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	147.85	155.95	152.96	150.01	129.75	153.74
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.35	0.38	0.80	0.25	0.75	0.80
Heating flow rate (gpm)	0.70	0.75	1.60	0.50	1.50	1.60
Coil fluid PD (ft H2O)	1.19	1.01	6.96	0.50	0.14	6.95
Main coil rows	1 ROW	1 ROW	1 ROW	1 ROW	2 ROW	1 ROW

Tags	VAV-3.6, VAV-3.10, VAV-3.12	VAV-3.7, VAV-3.13	VAV-3.8, VAV-3.14, VAV-4.6, VAV-4.11	VAV-3.9, VAV-3.15	VAV-3.11, VAV-4.8	VAV-3.16
Design cooling airflow (cfm)	1220	1280	1080	1050	980	1420
Min cooling airflow (cfm)	310	320	270	270	250	360
Valve heating airflow (cfm)	610	640	540	530	490	710
Cooling inlet diameter	12"	12"	10"	10"	10"	12"
Cooling inlet velocity (ft/min)	1553	1630	1980	1925	1797	1808
APD @ cooling airflow (in H2O)	0.320	0.340	0.230	0.440	0.390	0.400
Operating weight (lb)	52.5	52.5	37.6	41.8	41.8	52.5
Discharge valve - NC	28	29	30	27	27	29
Radiated valve - NC	<15	15	24	19	17	15
Coil heating capacity (MBh)	27.20	27.55	22.46	25.49	23.34	31.95
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	96.12	94.69	93.36	99.36	98.92	96.50
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	125.58	124.89	151.95	123.32	121.63	126.73
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.50	0.50	0.80	0.45	0.40	0.60
Heating flow rate (gpm)	1.00	1.00	1.60	0.90	0.80	1.20
Coil fluid PD (ft H2O)	0.07	0.07	6.96	0.15	0.12	0.09
Main coil rows	2 ROW	2 ROW	1 ROW	2 ROW	2 ROW	2 ROW

A BIT LOW, SHOULD BE 24 (6% LOWER)

Tags	VAV-3.17	VAV-4.1	VAV-4.2	VAV-4.3	VAV-4.4	VAV-4.5
Design cooling airflow (cfm)	1540	910	800	615	1380	1600
Min cooling airflow (cfm)	390	230	200	160	350	400
Valve heating airflow (cfm)	770	460	400	310	690	800
Cooling inlet diameter	12"	10"	10"	8"	12"	12"
Cooling inlet velocity (ft/min)	1961	1668	1467	1762	1757	2037
APD @ cooling airflow (in H2O)	0.460	0.180	0.150	0.210	0.390	0.490
Operating weight (lb)	52.5	37.6	37.6	27.5	52.5	52.5
Discharge valve - NC	29	30	29	31	29	29
Radiated valve - NC	15	21	20	19	15	17
Coil heating capacity (MBh)	35.86	20.58	18.00	14.14	31.70	36.26
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	97.94	96.26	96.49	97.07	97.36	96.80
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	128.77	152.58	145.66	159.82	127.16	128.18
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.70	0.75	0.52	0.70	0.60	0.70
Heating flow rate (gpm)	1.40	1.50	1.05	1.40	1.20	1.40
Coil fluid PD (ft H2O)	0.12	6.21	3.32	3.98	0.09	0.12
Main coil rows	2 ROW	1 ROW	1 ROW	1 ROW	2 ROW	2 ROW

Tags	VAV-4.7, VAV-4.9	VAV-4.10	VAV-4.12	VAV-4.13	VAV-4.14	VAV-4.16, VAV-10.12
Design cooling airflow (cfm)	1200	1280	1050	1540	1580	500
Min cooling airflow (cfm)	300	320	270	390	400	130
Valve heating airflow (cfm)	600	640	530	770	790	250
Cooling inlet diameter	12"	12"	10"	12"	12"	8"
Cooling inlet velocity (ft/min)	1528	1630	1925	1961	2012	1432
APD @ cooling airflow (in H2O)	0.310	0.340	0.440	0.460	0.480	0.150
Operating weight (lb)	52.5	52.5	41.8	52.5	52.5	27.5
Discharge valve - NC	28	29	27	29	29	30
Radiated valve - NC	<15	15	19	15	15	17
Coil heating capacity (MBh)	27.08	29.37	23.00	37.24	37.54	11.60
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	96.62	97.31	95.01	99.60	98.82	97.78
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	125.82	126.59	118.80	130.34	129.94	151.03
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.50	0.55	0.38	0.75	0.75	0.40
Heating flow rate (gpm)	1.00	1.10	0.75	1.50	1.50	0.80
Coil fluid PD (ft H2O)	0.07	0.08	0.11	0.14	0.14	1.50
Main coil rows	2 ROW	2 ROW	2 ROW	2 ROW	2 ROW	1 ROW

Tags	VAV-8.1, VAV-8.2, VAV-8.6	VAV-8.3	VAV-8.4	VAV-8.5	VAV-9.1	VAV-9.2
Design cooling airflow (cfm)	1200	145	190	235	500	795
Min cooling airflow (cfm)	300	40	50	60	130	200
Valve heating airflow (cfm)	600	120	140	120	250	400
Cooling inlet diameter	12"	5"	5"	5"	8"	10"
Cooling inlet velocity (ft/min)	1528	1063	1393	1723	1432	1458
APD @ cooling airflow (in H2O)	0.310	0.040	0.060	0.070	0.150	0.140
Operating weight (lb)	52.5	25.2	25.2	25.2	27.5	37.6
Discharge valve - NC	28	21	25	28	30	29
Radiated valve - NC	<15	<15	<15	15	17	20
Coil heating capacity (MBh)	26.00	6.65	7.10	6.65	11.00	17.81
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	94.96	106.12	101.76	106.12	95.57	96.07
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	124.85	153.42	151.63	153.42	145.41	144.39
Heating delta T (F)	55.15	26.58	28.37	26.58	34.59	35.61
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.47	0.25	0.25	0.25	0.32	0.50
Heating flow rate (gpm)	0.94	0.50	0.50	0.50	0.64	1.00
Coil fluid PD (ft H2O)	0.06	0.50	0.50	0.50	1.01	3.06
Main coil rows	2 ROW	1 ROW	1 ROW	1 ROW	1 ROW	1 ROW

Tags	VAV-9.3	VAV-9.4	VAV-9.5	VAV-9.6	VAV-9.7	VAV-10.1
Design cooling airflow (cfm)	1110	1625	265	1640	1440	700
Min cooling airflow (cfm)	280	410	70	410	360	180
Valve heating airflow (cfm)	560	820	140	820	720	350
Cooling inlet diameter	10"	12"	5"	12"	12"	8"
Cooling inlet velocity (ft/min)	2035	2069	1943	2088	1833	2005
APD @ cooling airflow (in H2O)	0.470	0.500	0.090	0.510	0.410	0.260
Operating weight (lb)	41.8	52.5	25.2	52.5	52.5	27.5
Discharge valve - NC	27	30	30	30	29	33
Radiated valve - NC	19	17	16	17	15	20
Coil heating capacity (MBh)	25.92	37.97	7.10	36.52	35.13	15.98
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	97.68	97.70	101.76	96.07	99.99	97.10
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	122.38	129.37	151.63	127.81	129.81	166.13
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.45	0.75	0.25	0.70	0.70	1.15
Heating flow rate (gpm)	0.90	1.50	0.50	1.40	1.40	2.30
Coil fluid PD (ft H2O)	0.15	0.14	0.50	0.12	0.12	9.55
Main coil rows	2 ROW	2 ROW	1 ROW	2 ROW	2 ROW	1 ROW

Tags	VAV-10.2	VAV-10.3	VAV-10.4, VAV-10.8	VAV-10.5	VAV-10.6	VAV-10.7
Design cooling airflow (cfm)	455	290	250	325	750	200
Min cooling airflow (cfm)	120	80	70	90	190	50
Valve heating airflow (cfm)	230	150	130	170	380	150
Cooling inlet diameter	8"	5"	5"	6"	10"	5"
Cooling inlet velocity (ft/min)	1303	2127	1833	1655	1375	1467
APD @ cooling airflow (in H2O)	0.130	0.100	0.080	0.190	0.130	0.060
Operating weight (lb)	27.5	25.2	25.2	25.2	37.6	25.2
Discharge valve - NC	29	31	29	28	29	25
Radiated valve - NC	15	18	16	16	19	<15
Coil heating capacity (MBh)	11.18	7.31	6.88	8.03	17.42	7.31
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	99.82	99.91	103.81	98.54	97.28	99.91
Heating ent fluid temp (F)	180.00	180.00	180.00	180.00	180.00	180.00
Heating lvg fluid temp (F)	152.07	150.80	152.50	153.27	145.17	150.80
Fluid type	Water	Water	Water	Water	Water	Water
Heating Cv (Number)	0.40	0.25	0.25	0.30	0.50	0.25
Heating flow rate (gpm)	0.80	0.50	0.50	0.60	1.00	0.50
Coil fluid PD (ft H2O)	1.50	0.50	0.50	0.68	3.06	0.50
Main coil rows	1 ROW	1 ROW	1 ROW	1 ROW	1 ROW	1 ROW

Tags	VAV-10.9	VAV-10.10	VAV-10.11
Design cooling airflow (cfm)	345	285	665
Min cooling airflow (cfm)	90	80	170
Valve heating airflow (cfm)	180	150	340
Cooling inlet diameter	6"	6"	8"
Cooling inlet velocity (ft/min)	1757	1451	1905
APD @ cooling airflow (in H2O)	0.210	0.150	0.240
Operating weight (lb)	25.2	25.2	27.5
Discharge valve - NC	29	27	33
Radiated valve - NC	16	15	19
Coil heating capacity (MBh)	8.23	7.31	15.21
Primary EDB (F)	55.00	55.00	55.00
Unit LAT (F)	97.15	99.91	96.24
Heating ent fluid temp (F)	180.00	180.00	180.00
Heating lvg fluid temp (F)	152.60	150.80	162.14
Fluid type	Water	Water	Water
Heating Cv (Number)	0.30	0.25	0.85
Heating flow rate (gpm)	0.60	0.50	1.70
Coil fluid PD (ft H2O)	0.68	0.50	5.60
Main coil rows	1 ROW	1 ROW	1 ROW

Mechanical Specifications - Variable Air Volume Single Duct Terminal Units
Item: A1 - A67 Qty: 88 Tag(s): All

General Unit Information
The unit casing is comprised of 22-gauge galvanized steel. Outlet connection is slip and drive. Agency Listing - The unit is UL listed as a room air terminal unit. UL Control # 9N65. All Trane terminal units are AHRI 880 - 98 certified.

General Unit Clearance
Allow adequate clearance on control box side of unit to meet NEC. A minimum of one and one half duct diameters of straight duct work, upstream of the air inlet connection, must be present for optimum airflow measurement performance. Upstream duct work should be the same diameter as the primary inlet connection.

1"Foil - Faced Insulation
The interior surface of the unit casing is acoustically and thermally lined with 1", 1.8 lb/cu. ft density glass fiber with foil facing. The insulation is UL listed and meets NFPA-90A, UL 181 standards, and bacteriological standard ASTM C 665. The insulation R-value is 4.2. All cut edges of insulation are completely encapsulated in metal to prevent erosion.

Air Valve Round
The air inlet connection is an 18-gauge galvanized steel cylinder sized to fit standard round duct. A multiple point, averaging flow sensing ring is provided with balancing taps for measuring within +/- 5% of unit cataloged airflow. An airflow versus pressure differential calibration chart is provided. The damper blade is constructed of a closed cell foam seal mechanically locked between two 22-gauge galvanized steel disks. The damper blade assembly is connected through a cast zinc stub axle and shaft supported by self-lubricating bearings. The shaft is cast with a damper position indicator. The valve assembly includes a mechanical stop to prevent over stroking. At 4.0" w.g. air valve leakage does not exceed 1% of cataloged airflow.

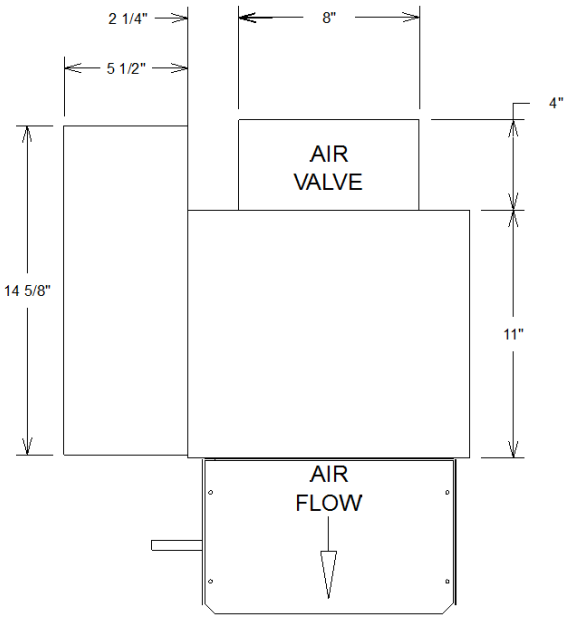
Hot Water Coil
Factory flange connected on unit casing outlet. The coil has 144 fpf (fins per foot) aluminum fins. Full fin collars provided for accurate fin spacing and maximum fin-tube contact. The seamless copper tubes are mechanically expanded into the fin collars and casing sides. Coils are proof tested at 450 psi and leak tested at 300 psi air pressure under water. Coil connections are sweat type. Coils provided with removable top and bottom access panels.

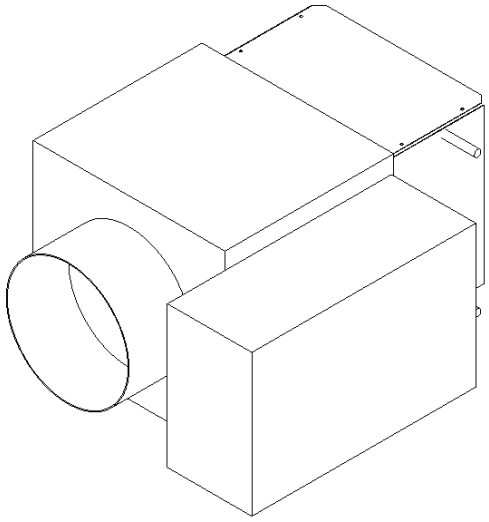
Slip & Drive Connection
A slip and drive connection has two straight flanges on the top and bottom, and two drive connections on the left and right sides. This is a standard option on all VAV single duct terminal units.

Toggle Disconnect Switch (for VCCF & VCWF)
A switch, installed in a unit mounted controls enclosure, which breaks both power legs within the control box.

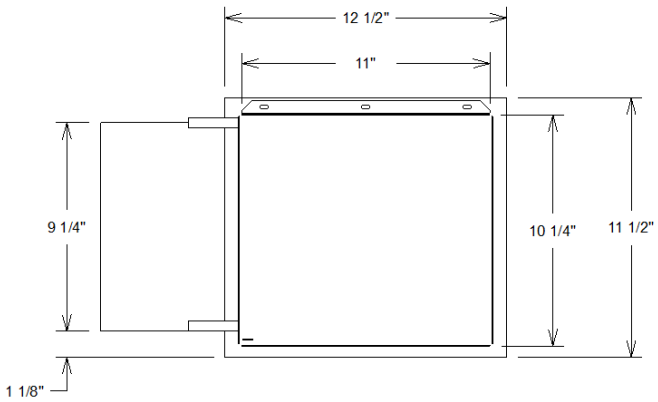
Control Transformer
The 50 VA transformer is factory mounted in a unit mounted controls enclosure with 7/8" knockouts to provide 24 VAC for controls.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A1, A5, A12, A16, A19, A34, A44, A49, A56, A57, A66, A67 Qty: 12 Tag(s): VAV-1.1, VAV-1.5, VAV-2.2, VAV-2.6, VAV-2.16, VAV-4.3, VAV-4.16, VAV-9.1, VAV-10.1, VAV-10.2, VAV-10.11, VAV-10.12





TOP VIEW



BACK VIEW

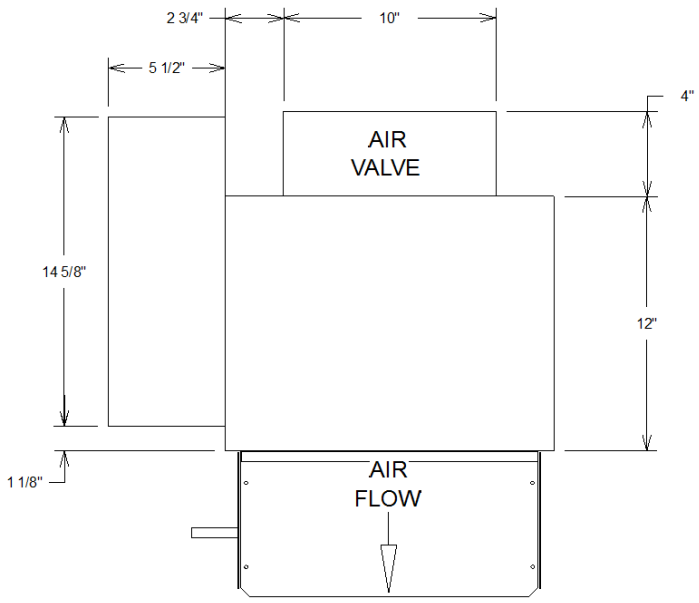
Customer Notes

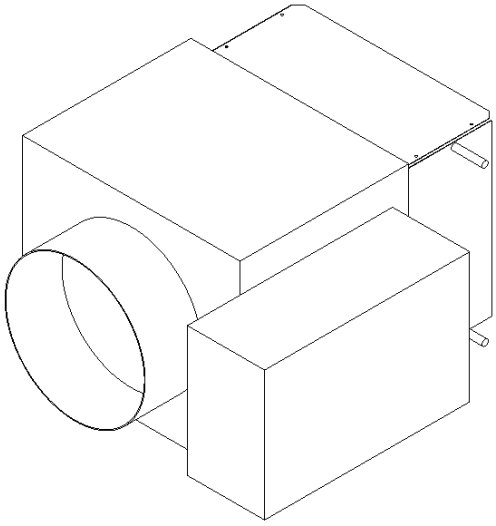
1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

Approximate Dry Weight	27.5 lb

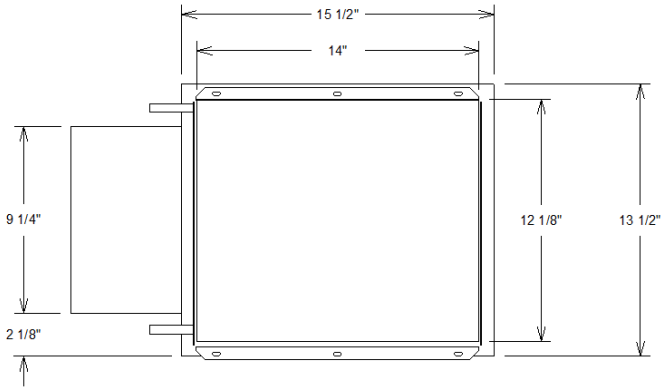
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A2, A21, A24, A27, A32, A33, A37, A50, A61 Qty: 12 Tag(s): VAV-1.2, VAV-1.6, VAV-3.2, VAV-3.5, VAV-3.8, VAV-3.14, VAV-4.1, VAV-4.2, VAV-4.6, VAV-4.11, VAV-9.2, VAV-10.6





TOP VIEW



BACK VIEW

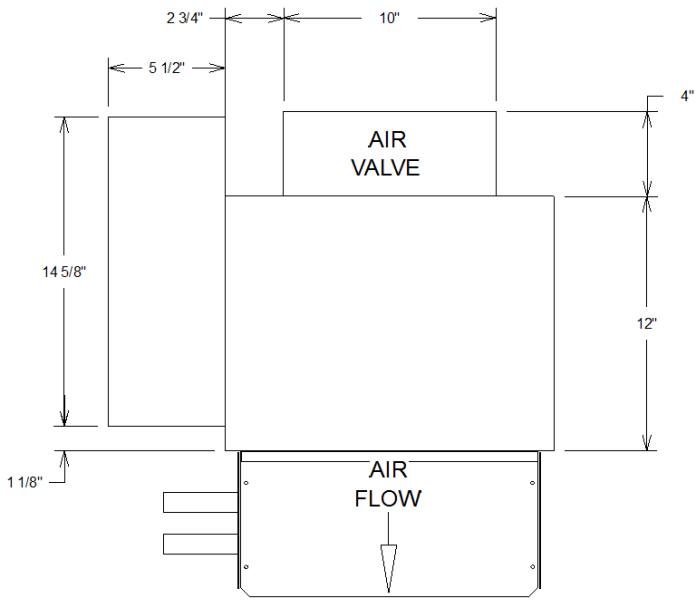
Customer Notes

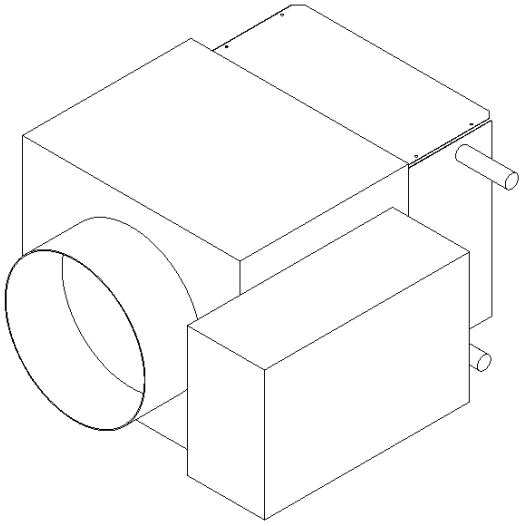
1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

Approximate Dry Weight	37.6 lb

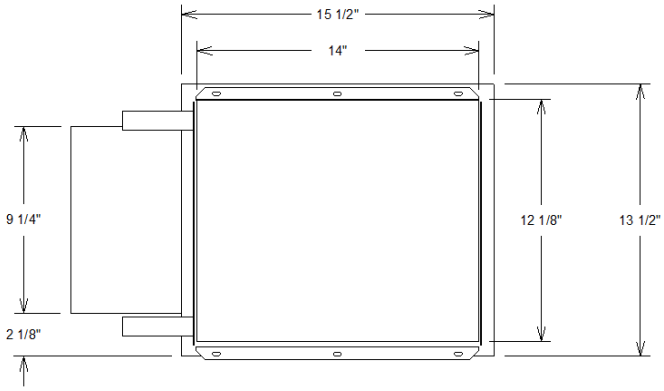
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A3, A14, A28, A29, A39, A41, A51 Qty: 8 Tag(s): VAV-1.3, VAV-2.4, VAV-3.9, VAV-3.15, VAV-3.11, VAV-4.8, VAV-4.12, VAV-9.3





TOP VIEW



BACK VIEW

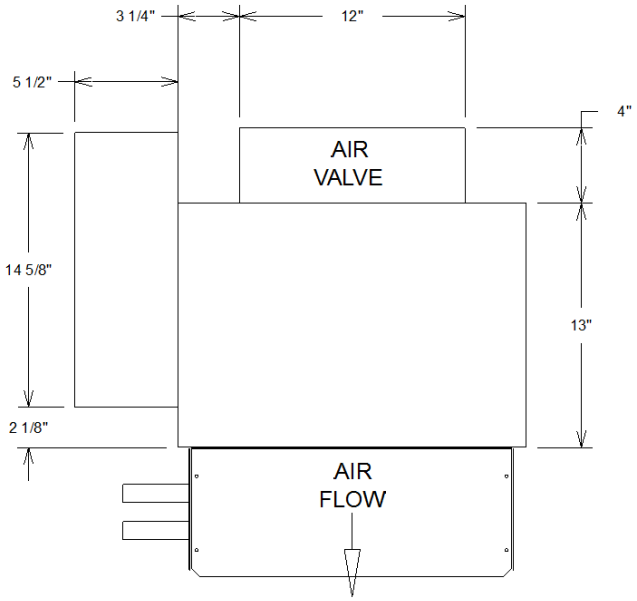
Customer Notes

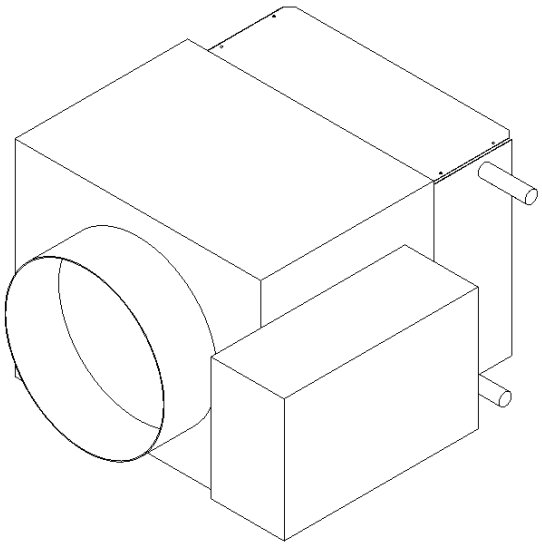
1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

Approximate Dry Weight	41.8 lb

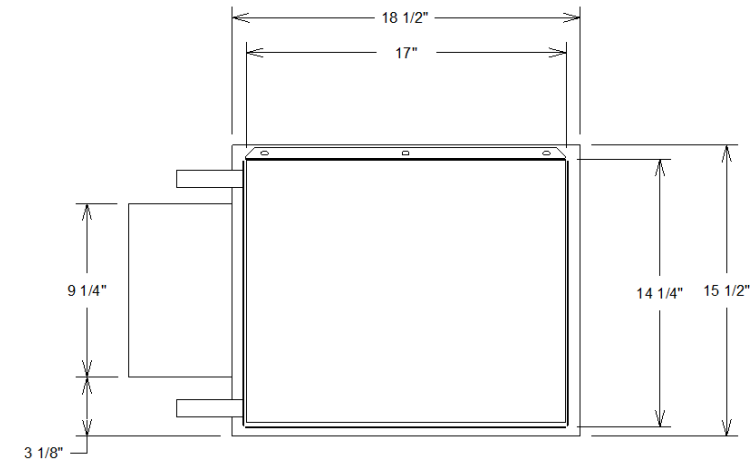
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A4, A6, A8, A9, A15, A18, A23, A25, A26, A30, A31, A35, A36, A38, A40, A42, A43, A45, A52, A54, A55
Qty: 31 Tag(s): VAV-1.4, VAV-1.11, VAV-1.7, VAV-1.9, VAV-1.12, VAV-2.14, VAV-2.5, VAV-2.8, VAV-2.10, VAV-2.13, VAV-3.4, VAV-3.6, VAV-3.10, VAV-3.12, VAV-3.7, VAV-3.13, VAV-3.16, VAV-3.17, VAV-4.4, VAV-4.5, VAV-4.7, VAV-4.9, VAV-4.10, VAV-4.13, VAV-4.14, VAV-8.1, VAV-8.2, VAV-8.6, VAV-9.4, ...





TOP VIEW



BACK VIEW

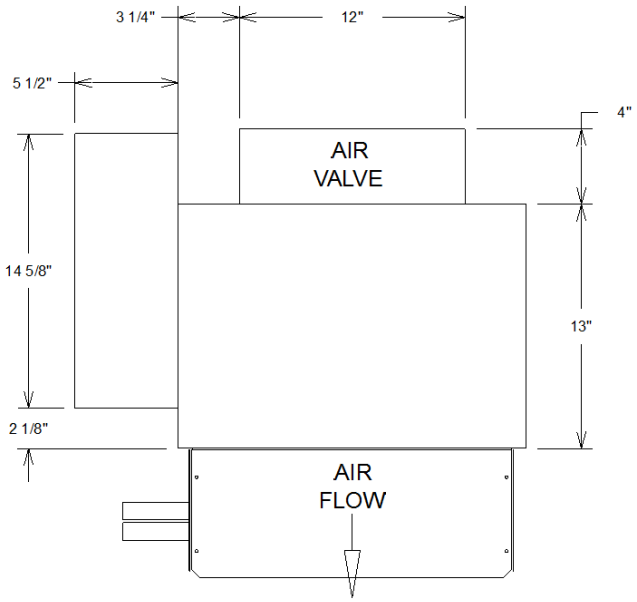
Customer Notes

1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

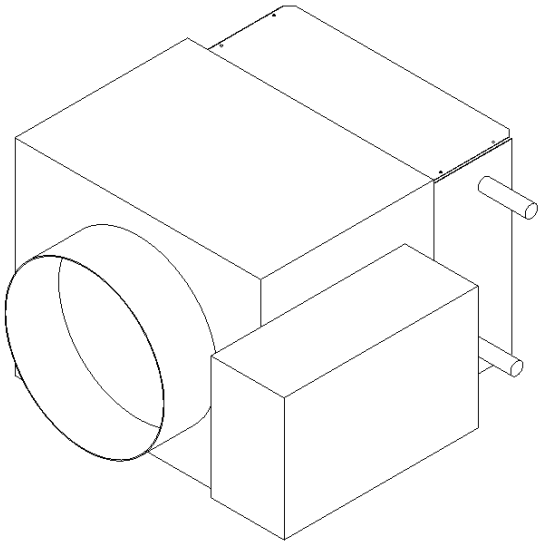
Approximate Dry Weight	52.5 lb

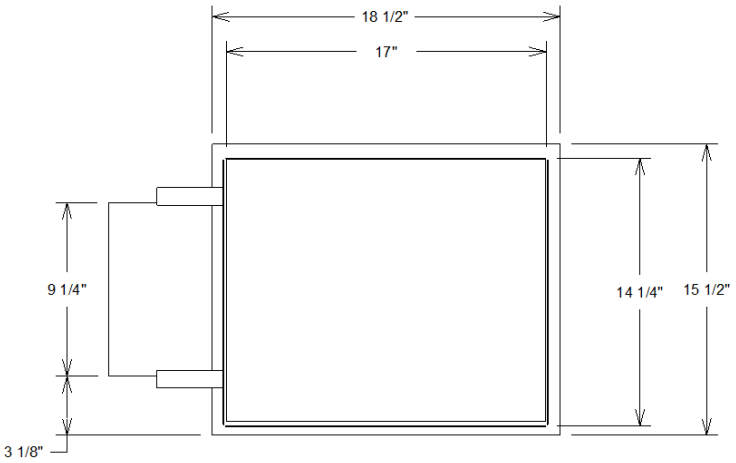
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A7, A17 Qty: 6 Tag(s): VAV-1.8, VAV-1.10, VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12



TOP VIEW





BACK VIEW

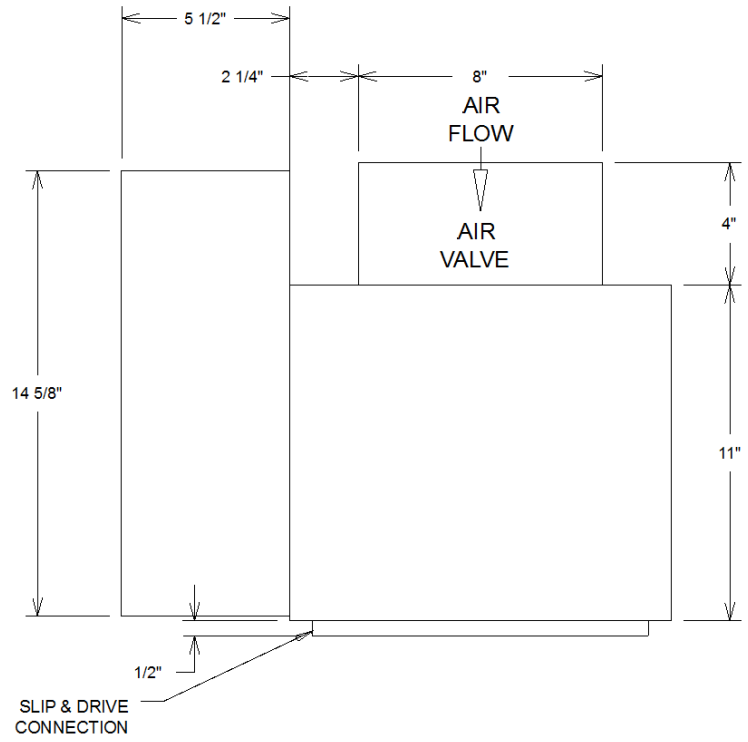
Customer Notes

1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

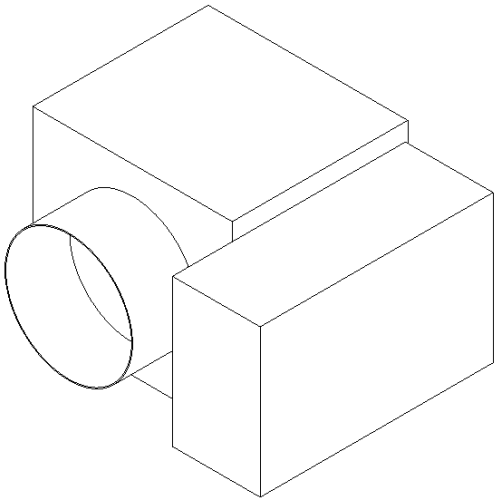
Approximate Dry Weight	47.0 lb

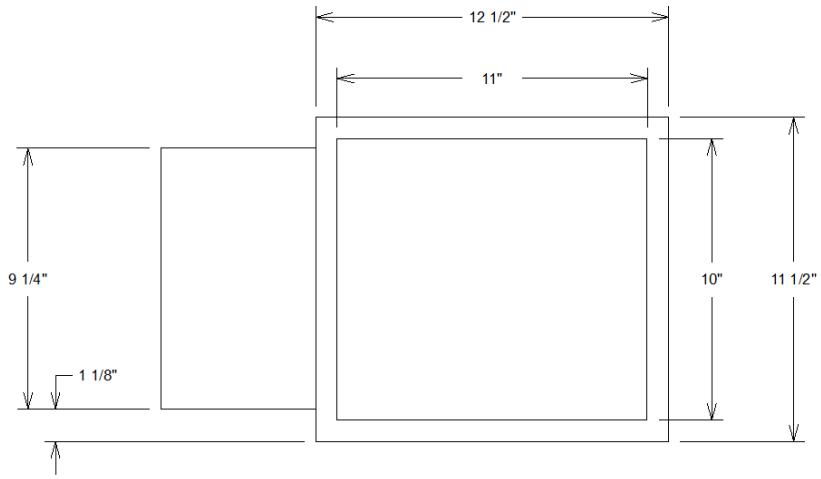
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A10 Qty: 4 Tag(s): VAV-1.13, VAV-2.15, VAV-3.18, VAV-4.15



TOP VIEW





BACK VIEW

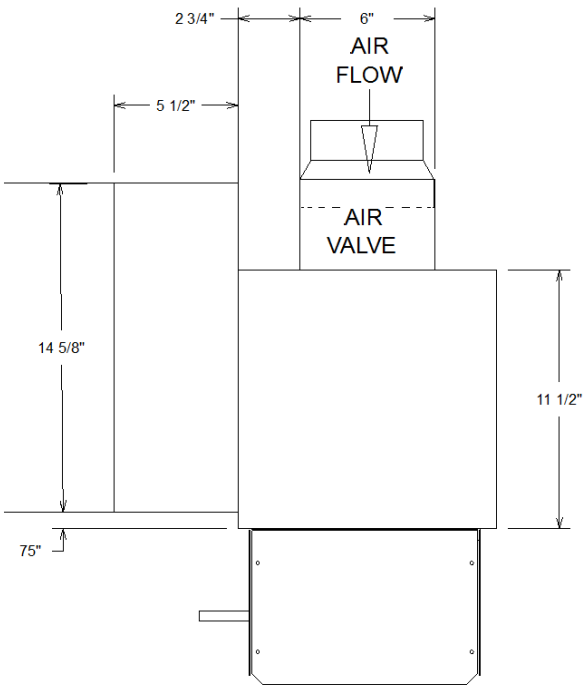
Customer Notes

1. Air Inlet is centered in unit front panel.
2. Slip & Drive discharge outlet standard.
3. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
4. Allow 36" on control side for servicing.
5. Unit is field-convertible from a left-hand connection (shown) to a right-hand by rotating unit.

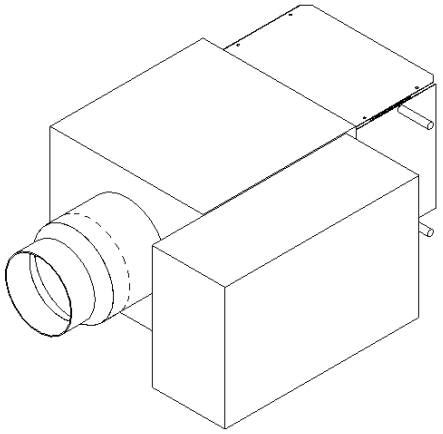
Approximate Dry Weight	22.0 lb

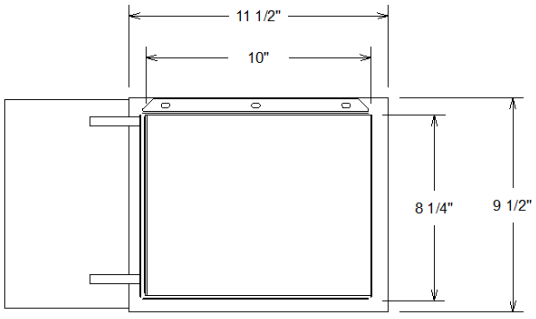
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A11, A46 - A48, A53, A58, A59, A62, A63 Qty: 9 Tag(s): VAV-2.1, VAV-8.3, VAV-8.4, VAV-8.5, VAV-9.5, VAV-10.3, VAV-10.4, VAV-10.7, VAV-10.8



TOP VIEW





BACK VIEW

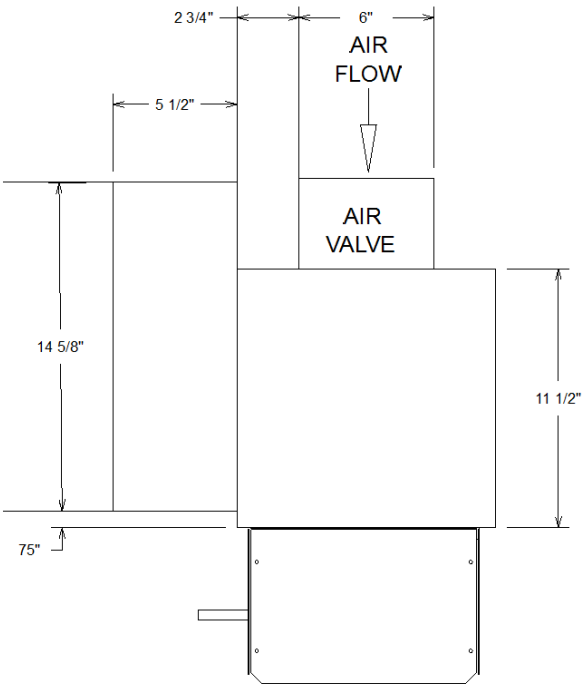
Customer Notes

1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

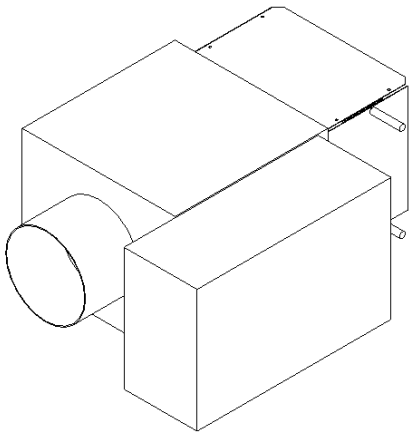
Approximate Dry Weight	25.2 lb

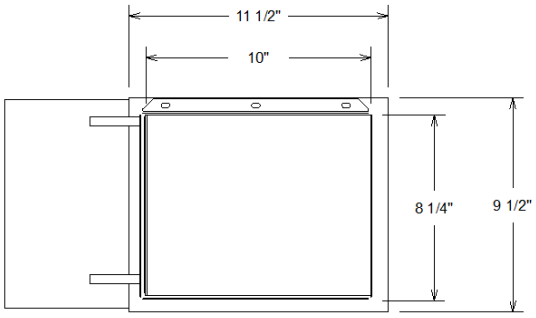
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units
Item: A13, A20, A22, A60, A64, A65 Qty: 6 Tag(s): VAV-2.3, VAV-3.1, VAV-3.3, VAV-10.5, VAV-10.9, VAV-10.10



TOP VIEW





BACK VIEW

Customer Notes

1. Air Inlet is centered in unit front panel
2. Minimum of 1.5 duct diameters of straight duct required at inlet for proper flow reading.
3. Allow 36" on control side for servicing.
4. Unit is field-convertible from a left-hand connection (shown) to right-hand by rotating unit. Use port at the bottom for inlet and top for outlet on single row coils. For multi-row coils, always plumb in counter flow orientation. Water inlet always on the air flow downstream side of the hot water coil. Water outlet always on the upstream side of the hot water coil. Opposite side (coil and control) connections are available for VCWF only.
5. Coil furnished with stub sweat connections.
6. Coils are provided without internal insulation. If the unit is to be installed in a location with high humidity, external insulation around the heating coil should be installed as required.
7. Unit and hot water coil are standard slip & drive field connection.
8. Detailed dimensions for the water coils can be found on the Accessory drawing.

Approximate Dry Weight	25.2 lb

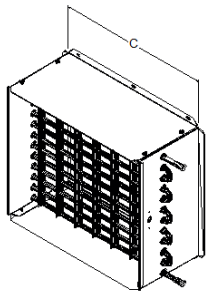
Weights reflected may vary ±5.0 lb based upon options selected.

Accessory - Variable Air Volume Single Duct Terminal Units
Item: A1, A2, A5, A7, A11 - A13, A16, A17, A19 - A22, A24, A27, A32 - A34, A37, A44, A46 - A50, A53, A56 - A67
Qty: 45 Tag(s): VAV-1.1, VAV-1.2, VAV-1.6, VAV-1.5, VAV-1.8, VAV-1.10, VAV-2.1, VAV-2.2, VAV-2.3, VAV-2.6, VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12, VAV-2.16, VAV-3.1, VAV-3.2, VAV-3.3, VAV-3.5, VAV-3.8, VAV-3.14, VAV-4.1, VAV-4.2, VAV-4.3, VAV-4.6, VAV-4.11, VAV-4.16, VAV-8.3, VAV-8.4, ...

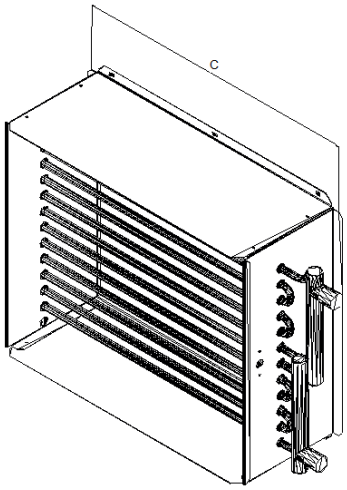
COIL INFORMATION FOR 1 ROW COIL ASSY									
VALV	CFM	LITERS per SECOND	COIL CONNECTION		A	B	C	D	E
04	225	106	3/8" [10mm] O.D.	SEE (FIG 1)	7" [178mm]	7/8" [22mm]	10 1/4" [261mm]	8 1/4" [210mm]	3/8" [10mm]
05	350	165	3/8" [10mm] O.D.		7" [178mm]	7/8" [22mm]	10 1/4" [261mm]	8 1/4" [210mm]	3/8" [10mm]
06	500	236	3/8" [10mm] O.D.		7" [178mm]	7/8" [22mm]	10 1/4" [261mm]	8 1/4" [210mm]	3/8" [10mm]
08	900	425	3/8" [10mm] O.D.		9" [229mm]	7/8" [23mm]	11 1/4" [286mm]	10 1/4" [261mm]	3/8" [10mm]
10	1400	661	3/8" [10mm] O.D.		11" [279mm]	7/8" [23mm]	14 1/4" [362mm]	12 1/4" [312mm]	3/8" [10mm]
12	2000	994	7/8" [22mm] O.D.	SEE (FIG 2)	9 3/4" [247mm]	2 1/2" [64mm]	17 1/4" [439mm]	14 1/4" [363mm]	2 1/32" [52mm]
14	3000	1416	7/8" [22mm] O.D.		15 3/4" [399mm]	1 1/2" [39mm]	19 1/4" [489mm]	18 1/4" [464mm]	1 1/32" [26mm]
16	4000	1888	7/8" [22mm] O.D.		15 3/4" [399mm]	1 1/2" [39mm]	23 1/4" [591mm]	18 1/4" [464mm]	1 1/32" [26mm]
16x24	8000	3776	7/8" [22mm] O.D.		16 3/4" [425mm]	1 1/2" [39mm]	27 1/4" [693mm]	18 1/4" [464mm]	1 1/32" [26mm]

CUSTOMER NOTES:

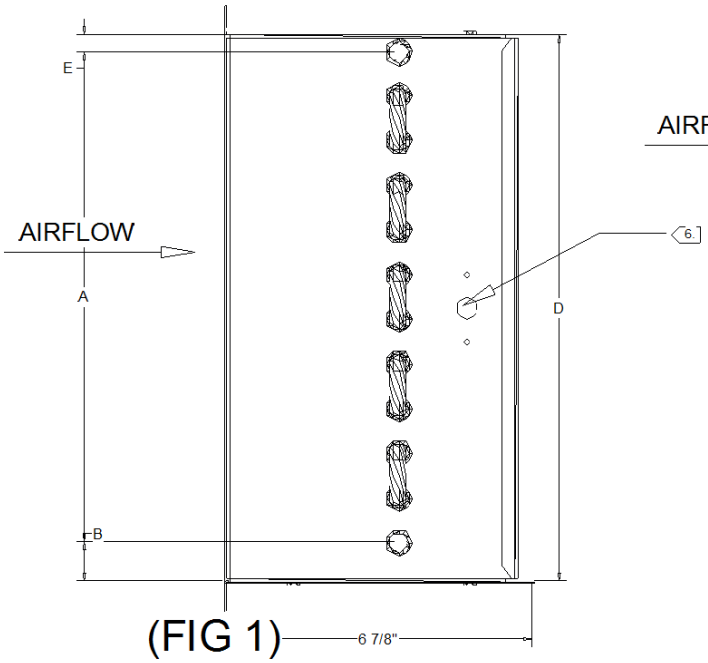
1. Location of coil connections is determined by facing air stream. L.H. Coil connections shown, R.H. opposite.
2. Coil furnished with stub sweat connections.
3. Use port at bottom for inlet and port at top for outlet on single row coils. Coil is rotated to achieve opposite hand connection.
4. Coil height and width is dependent upon unit height and width.
5. Top and bottom coil panel removable for access
6. OPTIONAL: Factory installed Duct Temperature Sensor.



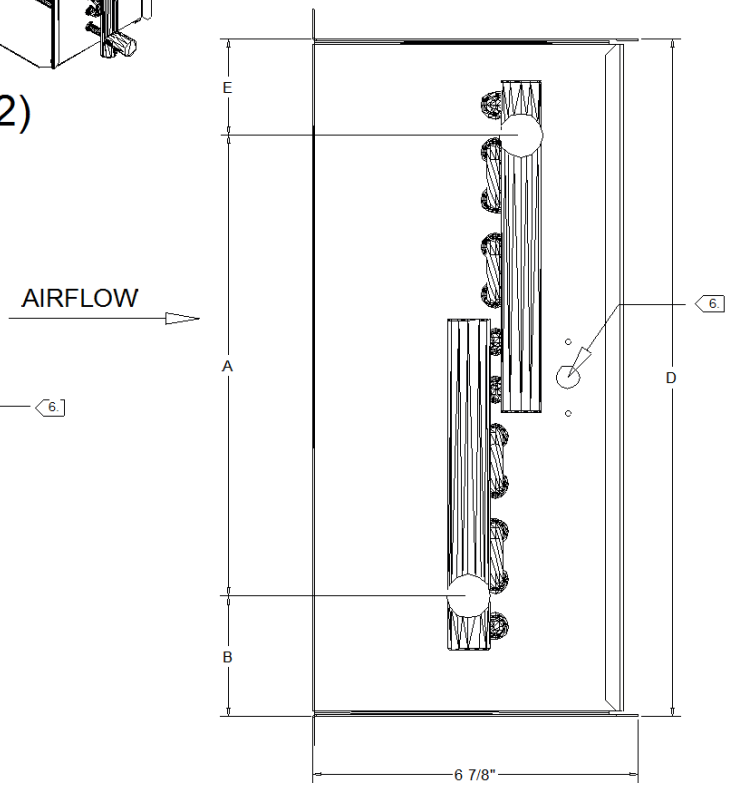
(FIG 1)



(FIG 2)



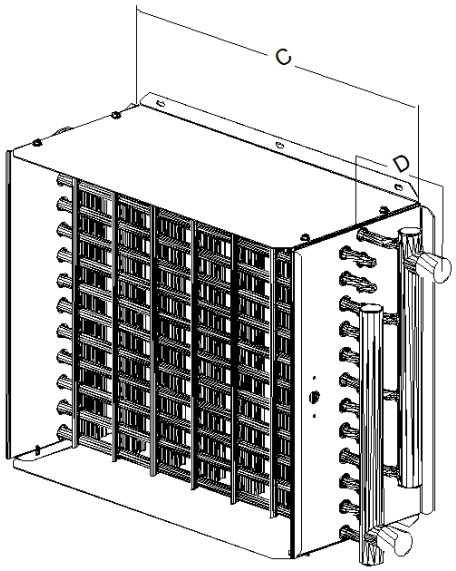
(FIG 1)



(FIG 2)

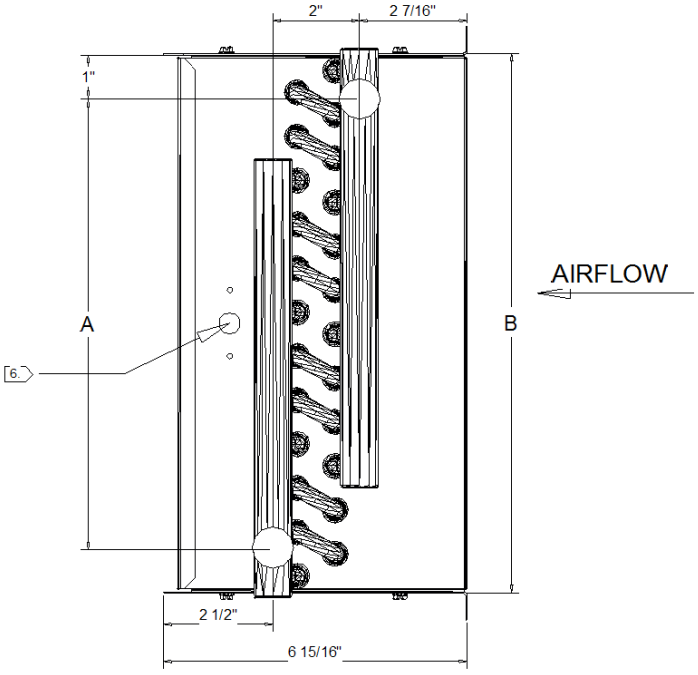
Accessory - Variable Air Volume Single Duct Terminal Units
Item: A3, A4, A6, A8, A9, A14, A15, A18, A23, A25, A26, A28 - A31, A35, A36, A38 - A43, A45, A51, A52, A54, A55 Qty: 39 Tag(s): VAV-1.3, VAV-1.4, VAV-1.11, VAV-1.7, VAV-1.9, VAV-1.12, VAV-2.14, VAV-2.4, VAV-2.5, VAV-2.8, VAV-2.10, VAV-2.13, VAV-3.4, VAV-3.6, VAV-3.10, VAV-3.12, VAV-3.7, VAV-3.13, VAV-3.9, VAV-3.15, VAV-3.11, VAV-3.16, VAV-3.17, VAV-4.4, VAV-4.5, VAV-4.7, VAV-4.9, VAV-4.8, ...

COIL INFORMATION FOR 2 ROW COIL ASSY							
VALV	CFM	LITERS per SECOND	COIL CONNECTION	A	B	C	D
04	225	106	7/8" [22mm] O.D.	6 1/4" [158mm]	8 1/4" [210mm]	10 1/4" [261mm]	3 1/2" [90mm]
05	350	165	7/8" [22mm] O.D.	6 1/4" [158mm]	8 1/4" [210mm]	10 1/4" [261mm]	3 1/2" [90mm]
06	500	236	7/8" [22mm] O.D.	6 1/4" [158mm]	8 1/4" [210mm]	10 1/4" [261mm]	3 1/2" [90mm]
08	900	425	7/8" [22mm] O.D.	8 1/4" [209mm]	10 1/4" [261mm]	11 1/4" [286mm]	3 1/2" [89mm]
10	1400	661	7/8" [22mm] O.D.	10 1/4" [259mm]	12 1/4" [312mm]	14 1/4" [362mm]	3 1/2" [89mm]
12	2000	994	7/8" [22mm] O.D.	12 1/4" [310mm]	14 1/4" [363mm]	17 1/4" [439mm]	3 1/2" [90mm]
14	3000	1416	7/8" [22mm] O.D.	16 1/4" [412mm]	18 1/4" [464mm]	19 1/4" [489mm]	3 1/2" [90mm]
16	4000	1888	7/8" [22mm] O.D.	16 1/4" [412mm]	18 1/4" [464mm]	23 1/4" [591mm]	3 1/2" [90mm]
16x24	8000	3776	7/8" [22mm] O.D.	16 1/4" [412mm]	18 1/4" [464mm]	27 1/4" [693mm]	3 1/2" [90mm]

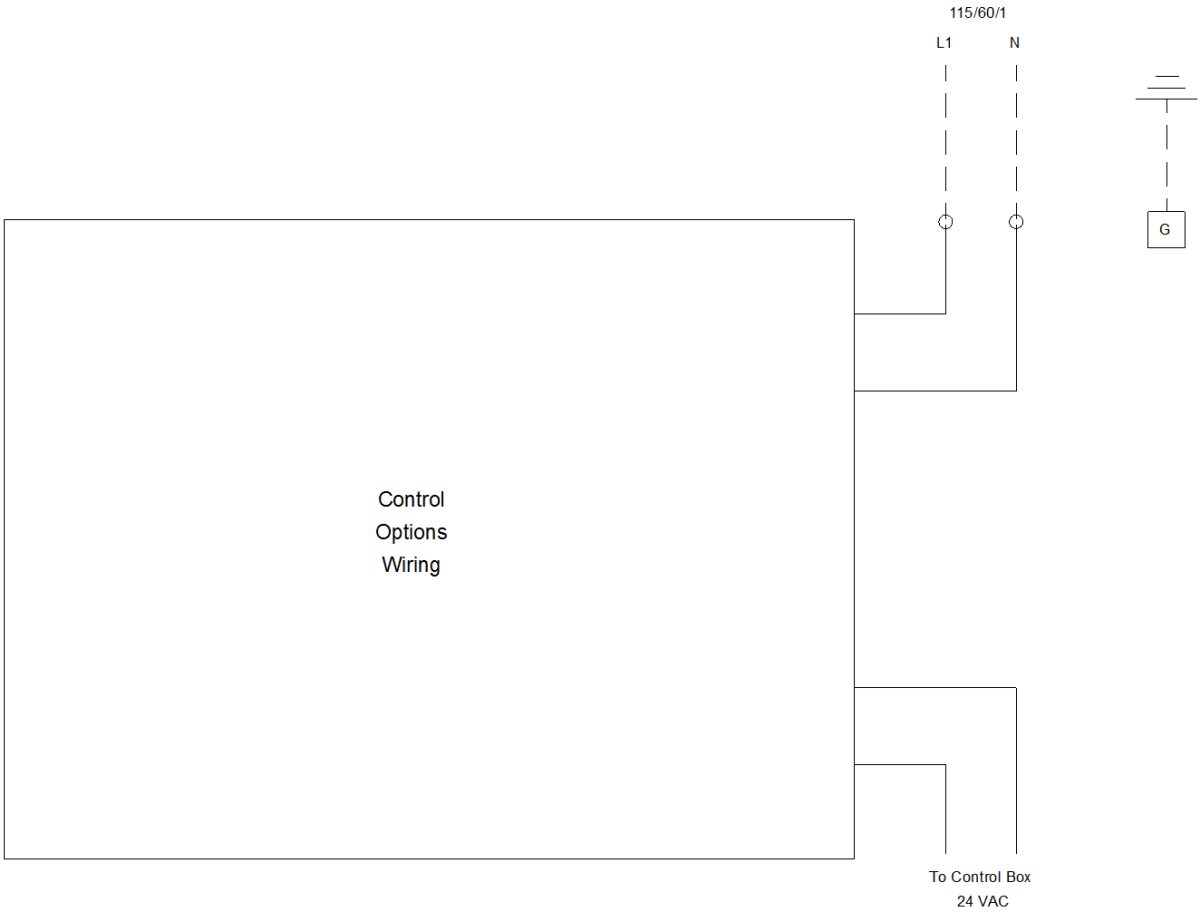


CUSTOMER NOTES:

1. Location of coil connections is determined by facing air stream. L.H. Coil connections shown, R.H. opposite.
2. Coil furnished with stub sweat connections.
3. Use port at bottom for inlet and port at top for outlet on single row coils. Coil is rotated to achieve opposite hand connection.
4. Coil height and width is dependent upon unit height and width.
5. Top and bottom coil panel removable for access
6. OPTIONAL: Factory installed Duct Temperature Sensor.



Field Wiring - Variable Air Volume Single Duct Terminal Units
Item: A1 - A67 Qty: 88 Tag(s): VAV-1.1, VAV-1.2, VAV-1.6, VAV-1.3, VAV-1.4, VAV-1.11, VAV-1.5, VAV-1.7, VAV-1.8, VAV-1.10, VAV-1.9, VAV-1.12, VAV-2.14, VAV-1.13, VAV-2.15, VAV-3.18, VAV-4.15, VAV-2.1, VAV-2.2, VAV-2.3, VAV-2.4, VAV-2.5, VAV-2.6, VAV-2.7, VAV-2.9, VAV-2.11, VAV-2.12, VAV-2.8, VAV-2.10, VAV-2.13, VAV-2.16, VAV-3.1, VAV-3.2, VAV-3.3, VAV-3.4, VAV-3.5, VAV-3.6, VAV-3.10, VAV-3.12, ...



⚠ WARNING

HAZARDOUS VOLTAGE!

DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.

FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH

⚠ CAUTION

USE COPPER CONDUCTORS ONLY!

UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.

FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

Customer Notes:

1. ———— Factory installed.
   — — — — Optional or installed by others.