

Pure and Simple Solutions

Direct-Fired Make-Up Air Value

Capacities from
800 to 13,000 CFM

100% Fresh Air,
Heated or Cooled



The **V-Series**



The V-Series

AbsolutAire's Value-Driven Make-Up Air Systems

Direct-Fired Make-Up Air Systems are widely used in kitchen and food-service operations, as well as in other applications such as industrial processing and wastewater treatment.

Stale or fouled exhaust air is economically and effectively replaced with fresh and clean outside air. And, with its AA-Series, AbsolutAire offers the *Best Available Technology* for the highest airflow volumes.

Yet, even the best can get better. AbsolutAire® V-Series delivers the *Best Available Value* for lower-volume make-up air applications.

With value-driven design excellence, V-Series make-up air systems offer unsurpassed economy, application versatility, low-maintenance durability, and exceptional product support. No one can match the value-added advantages of V-Series.

AbsolutAire V-Series models are provided in capacities from 800 to 13,000 CFM with 100% fresh air heated by either natural or LP gas. Impressive standard features simplify unit installation, boost operating efficiency, and reduce service costs. Select optional features enhance the value even further.

Value-Added Advantages

- ▲ Unsurpassed Economy
 - Competitive Low First Cost
 - Quick & Easy Installation
 - Ultra-Efficient Operation
- ▲ Application Versatility
 - Various Airflow Ranges
 - Fueled with Natural or LP Gas
 - Cooling Options Available
- ▲ Low-Maintenance Durability
 - Non-Corrosive Cabinet
 - Sealed, Lift-Out Access Panels
 - Fan & Motor Vibration Isolation
- ▲ Exceptional Product Support
 - Quick-Ship Availability
 - 100% Factory Testing
 - Exclusive Limited Warranty



Smart Cabinetry: Robust V-Series performance is housed in a lightweight, non-corroding cabinet built on a tubular frame and fully insulated. Good looking, good thinking.





PROFILER® Gas Burner Adjustment System*

Safety and efficiency depend on proper air velocity across the burner. Installation static pressures may require burner profile adjustments. AbsolutAire's Profiler system includes a built-in manometer and profile-adjustment mechanism for ensuring the correct burner pressure drop during field startup.

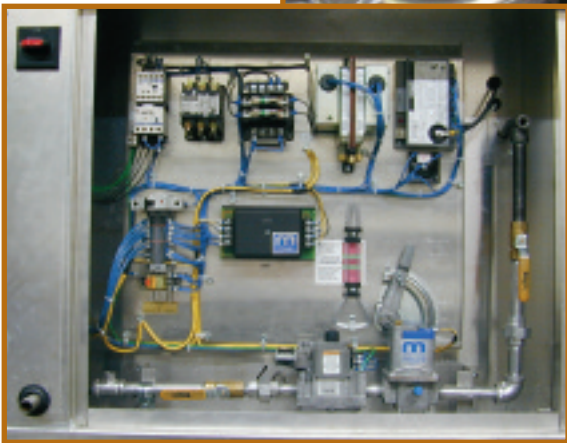
- ◀ **Smart Technology:** Dialing in the correct burner pressure drop is simple and exact with the innovative Profiler system. Other controls prevent firing if the airflow velocity is outside an acceptable range.



Quiet Efficiency Moving Air

Solidly assembled to a vibration-isolated base, V-Series fan-motor assemblies are built for high performance and quick service. A DWDI forward-curved fan is mated to an EPACT-compliant motor, and an advanced V-belt drive package with variable-pitch sheaves is designed with a safety factor of 30% over motor nameplate capacity.

- ◀ **Smart Service:** V-Series drive-belt tensioning is quick and sure with an easily adjusted pivot- or slide-type motor mount.



Easy-Access Control Modules

Safely concealed behind a lift-off, weather-tight access door, V-Series electrical and gas controls are designed for failsafe performance during startup and operation. A power disconnect switch and gas-inlet fitting are on the cabinet exterior.

- ◀ **Smart Controls:** Modular electrical and gas controls feature positive-locking connectors and fittings for exceptional reliability.



Economical Cooling, Too

V-Series boasts near-100% efficient heated make-up air with either natural or LP gas. Yet, seasonal needs may require cooling. Available options include cooling coils as well as evaporative media.

- ◀ **Smart Options:** Real value is in the details on V-Series; packed with numerous standard features, but also offering "must-have" options like cooling.

® "Profiler" is a registered trademark of AbsolutAire, Inc.

* Patent pending.

The V-Series

Real VALUE in the Details

Delivering the *Best Available Value* means setting new standards in cost, content, and performance. AbsolutAire's value-driven V-Series make-up air systems are unequalled. And, real value goes beyond best price and best delivery.

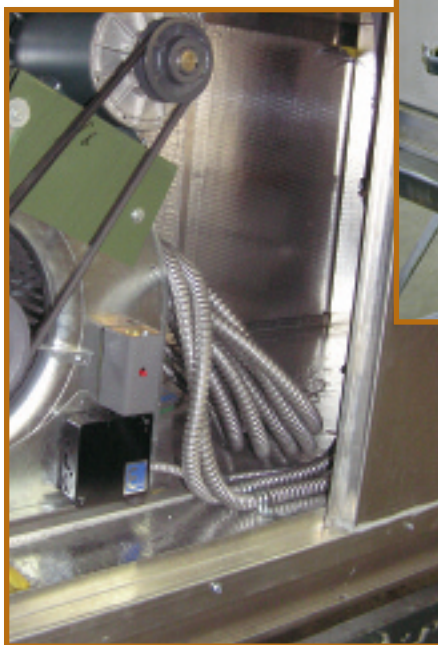
Pure & Simple: Real value is in the details. Just look at the impressive array of standard features, key innovations, and attractive options.



▲ Advanced V-series burner technology includes low-maintenance, cast-aluminum manifolds with non-clogging, stainless-steel mixing plates.



▲ Weather-tight, lift-off panels allow easy access to controls, burner, and blower-motor sections.



▲ Pre-wired conduit (15 feet) is supplied for making power and control connections; pigtails are marked for quick field tie-ins.



◀ An optional inlet hood features a clamshell-style filter rack with replaceable polyester filters or cleanable aluminum-mesh filters. No tools are needed to change filters.



◀ Optional cooling can be provided with evaporative media or with chilled-water (CW) or direct-expansion (DX) coils.

◀ A parallel-blade, motorized inlet or discharge damper (optional) features a 24V actuator, pre-wired for field connection. (Gravity-style, backdraft damper assemblies are also available.)

Value Snapshot

Standard Features

- ▲ Rigid Channel Base
- ▲ Extruded Aluminum-Tube Frame
- ▲ Weather-Tight, Non-Corrosive Skin
- ▲ Foil-Faced Interior Insulation
- ▲ Lift-Out Access Panels with Gaskets & Handles
- ▲ Integral Lifting, Mounting, Suspension Points
- ▲ Horizontal (End) or Down Discharge
- ▲ DWDI Forward-Curved Fan
- ▲ Fan Bearings Rated for L₁₀ Life (100,000 hrs. min.)
- ▲ Fan & Motor Vibration Isolators (Neoprene rubber)
- ▲ Drive Motor with Variable-Pitch Sheaves
- ▲ IEC Motor Starter(s) and Overload Protection
- ▲ Maxitrol Series 14 Discharge Temperature Control (at unit)
- ▲ Remote Control Panel (NEMA 1, 2 & 5 Enclosures)
- ▲ Non-Fused Disconnect Switch
- ▲ Installation Wiring Harnesses & Flexible Conduit
- ▲ Pre-Wired and Pre-Piped Unit Control Modules
- ▲ Aluminum Cast Burner with 30:1 Turndown Capability
- ▲ Profiler® Burner Adjustment System with Built-In Manometer
- ▲ Direct Ignition with Low Fire Start
- ▲ Flame Safeguard Controls with Remote Reset
- ▲ ETL Certification to ANSI Design Standards
- ▲ 100% Factory Testing (Mechanical & Functional)

Options Available

- ▲ DX or CW Cooling Coil
- ▲ Evaporative Cooling
- ▲ Filtered Inlet Hood
- ▲ Side-Access Filter
- ▲ Maxitrol Series 14 Discharge Temperature Control (at Remote)
- ▲ Motorized Inlet Damper or Discharge Damper (Shipped Loose)
- ▲ Gravity-Style Backdraft Damper Assembly
- ▲ Duct Curb or Full-Unit Roof Curb (Flat or Pitched)
- ▲ Low Temperature Limit (Freeze Protection)
- ▲ Painted Cabinet (Any Color, Industrial Enamel)



Two-Year Parts and 90-Day Labor Limited Warranty

Parts furnished by AbsoluteAire that prove to be defective at the site of the original installation within **24 months from the date of start-up, or 27 months from the date of shipment**, whichever comes first, will be replaced or repaired at AbsoluteAire's discretion. **Wear items, such as V-belts, filters, etc., are not included as covered parts under this Warranty.** Defective parts must be returned to AbsoluteAire at the customer's expense. Warranty replacement parts will be shipped freight prepaid from AbsoluteAire via normal ground service.

The customer must notify AbsoluteAire promptly in writing of any claim under this Limited Warranty. AbsoluteAire will require information to ensure the equipment has been installed and maintained properly, and operated as intended within the specifications as stated on the AbsoluteAire Quotation and/or Order Acknowledgment. Components provided by others are not covered under this Warranty. If an AbsoluteAire part fails as a result of components furnished by others, the AbsoluteAire component may not be covered under this Warranty.

Reimbursement for labor to remove and/or install replacement parts is included in this Warranty for a period of 30 days from field start-up or 90 days from shipment, whichever comes first. AbsoluteAire is responsible to determine the amount of labor reimbursement allowed, based upon the circumstances for each installation. Labor cost reimbursement must be approved by AbsoluteAire **prior** to work being performed.

Disclaimer: The warranties contained in this written Limited Warranty are made in lieu of all other warranties expressed or implied, statutory or otherwise. In particular, AbsoluteAire makes no warranty of merchantability for fitness for a particular purpose, unless written and signed by an officer of the Company referencing this particular disclaimer. AbsoluteAire shall have no liability to the customer/owner for direct, consequential or incidental damages of any kind whatsoever.

The V-Series

Model Selection and Performance

Heating Capacities¹

Model	Gas Manifold Size (IPS)	Maximum MBH ²	Min. Pressure Required at Maximum MBH (Inches W.C.)	Maximum Inlet Gas Pressure (Inches W.C.)
V1	1/2	155	7	14
V2	1/2	290	8	14
V3	3/4	625	8	14
V4	3/4 ³	745	9	14
V5	1	1,125	13	28

Heating Capacities Notes:

1. Maximum MBH Capacities listed are based on a unit operating at 750-foot elevation and an outside air (OA) temperature of -10°F.
2. Ratings are for both natural and propane gas, and are limited to the lesser of the maximum MBH shown or a temperature rise of 80°F.
3. If the MBH required is greater than 625 MBH, a 1" manifold will be required.

Static Pressure Drops*

Cabinet & Options	Inches W.C.
Cabinet	0.80
Filtered Inlet Hood	0.10
Motorized Inlet Damper	0.10
Motorized Discharge Damper	0.20
Side Access Filter	0.25

*Total Static Pressure Drop: After adding the losses from the cabinet and options, also add project-specific ductwork losses (user provided).

Model Selection, Fan and Motor Requirements

Unit CFM	Fan	Model	Fan and Motor Requirements @ Total Static Pressure Shown										Outlet Velocity (FPM)
			0.80"		1.00"		1.25"		1.50"		2.00"		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
800	10-8	V1	888	0.22	1004	0.26	1134	0.30	1251	0.37	CF		965
1,000			883	0.27	989	0.32	1110	0.38	1227	0.44	CF		1,206
1,250			880	0.35	986	0.41	1103	0.48	1210	0.59	1406	0.74	1,507
1,500			888	0.40	985	0.55	1101	0.64	1208	0.72	1397	0.92	1,808
1,700			903	0.56	994	0.64	1102	0.75	1206	0.87	1395	1.10	2,050
1,600	10	V2	853	0.47	950	0.59	1075	0.73	1191	0.89	1395	1.23	1,543
2,000			872	0.66	962	0.78	1066	0.92	1163	1.10	1362	1.43	1,929
2,400			904	0.90	987	1.05	1084	1.19	1175	1.35	1345	1.71	2,315
2,800			760	0.85	840	0.97	932	1.16	1018	1.32	1177	1.67	1,920
3,000			768	0.95	845	1.11	936	1.27	1020	1.44	1175	1.80	2,057
3,500	794	1.27	865	1.41	950	1.62	1030	1.81	1178	2.24	2,400		
3,200	15	V3	659	0.80	727	0.94	808	1.15	889	1.35	1038	1.75	1,558
4,000			683	1.12	749	1.30	824	1.51	892	1.74	1022	2.25	1,948
5,000			729	1.72	786	1.91	854	2.20	920	2.43	1040	2.93	2,435
6,000			786	2.52	837	2.75	899	3.12	957	3.41	1070	3.98	2,922
6,800			836	3.37	884	3.63	941	3.95	996	4.27	1099	4.92	3,312
4,900	18	V4	505	1.23	562	1.43	633	1.72	709	2.15	CF		1,709
5,500			511	1.48	564	1.70	629	1.97	692	2.33	CF		1,918
6,500			530	2.02	577	2.29	634	2.58	690	2.89	797	3.66	2,267
7,500			554	2.71	598	2.98	650	3.40	700	3.73	796	4.42	2,616
8,100			569	3.23	613	3.56	662	3.91	710	4.26	801	4.99	2,825
6,800	20	V5	471	1.77	519	2.12	578	2.54	633	2.98	736	4.00	1,599
7,500			482	2.11	525	2.41	580	2.84	633	3.38	732	4.37	1,763
9,000			511	2.92	549	3.34	596	3.77	641	4.23	732	5.39	2,116
10,500			545	4.09	580	4.44	623	4.91	663	5.51	742	6.56	2,468
12,000			584	5.58	616	5.98	655	6.48	692	7.01	764	8.24	2,821
13,000	611	6.69	642	7.12	679	7.78	714	8.83	782	9.49	3,056		



Model Selection Notes:

CF = Consult Factory

Fan Performance (RPM, CFM) is based on operation at 750-ft. elevation with 70°F discharge (supply air) temperature.

Brake Horsepower (BHP) ratings include motor drive losses.

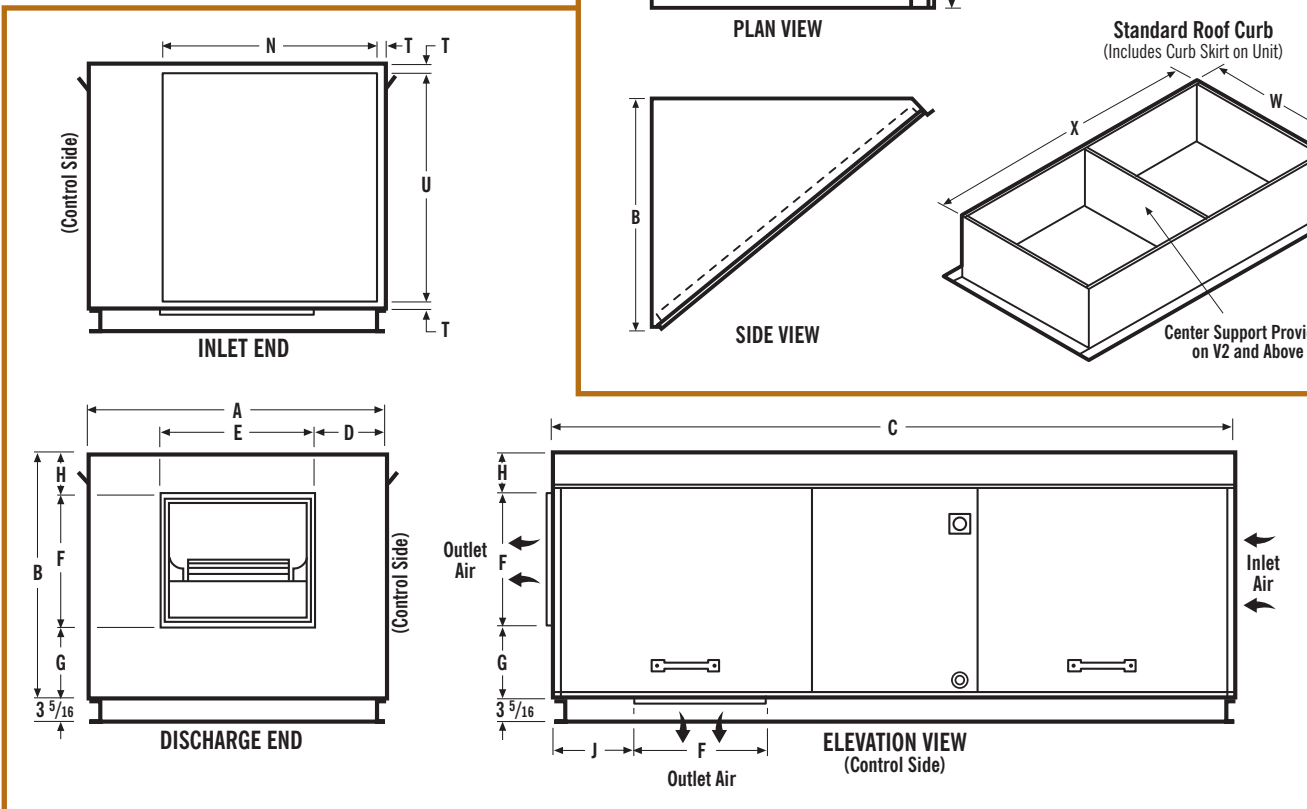
THIS DATA IS SUBJECT TO CHANGE WITHOUT NOTICE. CONSULT FACTORY FOR SPECIFIC APPLICATIONS.

Dimensional Data

Options



Cabinets



Model	Size, inches			Supply Air Details, inches					Other Dimensions, inches							
	A	B	C	D	E	F	G	H	J	K	L	N	T	U	W	X
V1	28	24	50	10-1/2	12-1/2	13-3/8	6-7/8	3-3/4	8	27	22-7/8	19-7/8	1	22	24	46
V2	32	30	72	7-3/16	17-5/8	15-7/16	8-1/4	6-5/16	9-1/4	32	27-7/8	22-7/8	1	28	28	68
V3	40	33	92	9-11/16	20-5/8	17-7/8	9-3/8	5-3/4	10-1/2	41	34-7/8	28-7/8	1	31	36	88
V4	48	38	96	12-1/16	23-7/8	20-7/8	11	6-1/8	12-1/4	37-1/2	42-7/8	36-7/8	1	36	44	92
V5	55	48	96	14-1/8	26-3/4	26-3/4	12-15/16	8-5/16	13-1/2	47	52-7/8	43-7/8	1	46	51	92

NOTES: Data is subject to change without notice.

V2 model supply air (discharge) details are for unit with 12-inch fan; consult factory for details on V2 model with 10-inch fan.

Other *Pure and Simple* *Solutions:*

- ▲ AA-Series Direct-Fired Heating & Ventilating
- ▲ CH- & DH-Series Space Heaters
- ▲ Coil & Evaporative Cooling Systems
- ▲ R-Series Direct-Fired Heating & Ventilating
- ▲ S-Series Air-Handling Systems



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