



The H•Series

Pure and Simple Solutions

HTLV Space Heating

- Proven alternative to blow-through design
- Design flexibility & application versatility
- Optimized IAQ & occupant comfort



The H•Series

AbsolutAire® HTLV Space Heating

With unmatched design flexibility and application versatility, *AbsolutAire*® H-Series HTLV space heating systems can meet or exceed the performance of typical blow-through, direct gas-fired space heaters. AbsolutAire's HTLV (high temperature, low volume) units are proven, cost-effective alternatives to HTHV (high-temperature, high-velocity) space heaters.

Successfully meeting a wide range of space-heating requirements, *AbsolutAire* H-Series HTLV models are available with airflow capacities from 800 to 54,000 CFM and heating capacities from 100 to 6,000 MBH. In addition, AbsolutAire can meet specialized space-heating needs with value-added V-Series designs for smaller spaces and with building-pressurization AA- or R-Series designs for large spaces or industrial manufacturing facilities.

Compared to blow-through space heating systems, draw-through H-Series HTLV space heaters from AbsolutAire can be precisely engineered to optimize indoor air quality and occupant comfort, for most types of buildings, climate extremes or operating conditions. Much higher CFM and MBH capacities, as well as equal or better standard and optional features, surpass current blow-through design capabilities to meet required facility space-heating needs. Fuel and installation options are available.

For a growing number of specifying engineers, HVAC contractors, building owners and facility operators, *AbsolutAire* H-Series HTLV space heaters are an excellent choice to meet heating and ventilating requirements in warehouses, distribution centers, manufacturing plants, aircraft hangars, automotive service facilities, farm buildings, fire stations, indoor sports facilities, storage/service buildings, and similar facilities.

H-Series HTLV Advantages

Added System Design Flexibility

- Multiple Sizes Meet Precise Needs
- Upright (upflow or downflow) and Horizontal Models
- Attractive Standard/Optional Features

Increased Application Versatility

- 100% Outside Air
- ETL Certification to ANSI and CSA Standards
- Outdoor/Indoor Installation Options

Optimized IAQ & Occupant Comfort

- Uniform Space Heating
- Continuous, or On/Off Ventilation, as Needed
- Precise Temperature-Control Systems



Economy, performance and durable reliability.

AbsolutAire H-Series HTLV space heaters provide added design flexibility and increased application versatility, compared to typical blow-through, direct gas-fired HTHV systems.

Direct-Fired Draw-Through Design

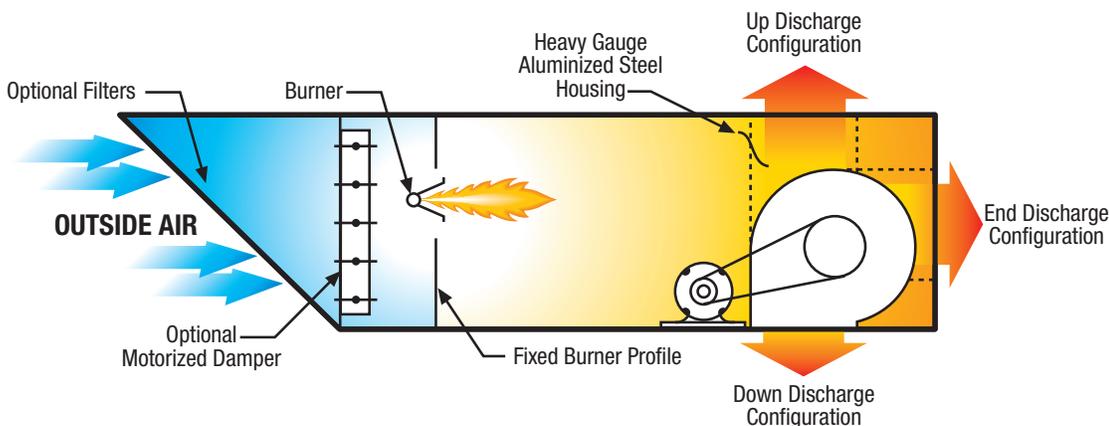
Uniform heating without stratification. *AbsolutAire* H-Series HTLV systems use proven, cost-effective space heating technology. An industry-leading direct gas-fired burner provides 100% combustion efficiency with 92% thermal efficiency. It is located close to the outside air (OA) and upstream of the blower-fan discharge plenum. This “draw-through” design ensures uniform airflow across the burner; allows automatic, accurate adjustments of the burner profile opening to compensate for changes in static pressure and air volume; and simplifies various discharge configurations without the use of ductwork.

AbsolutAire H-Series HTLV is ETL-certified for operation up to 143°F ΔT (temperature rise). To ensure uniform heating without cold spots or a typical need for supplementary “Casablanca” type fans, the H-Series air-delivery volume and velocity, blower-fan operation and air-distribution design are optimized for the specific facility needs. To minimize stratification, condensation and building skin loss, each H-Series model is designed to provide not only the BTU’s to heat the space, but also sufficient ventilation air for occupant comfort.

Application-matched air delivery and distribution options. *AbsolutAire* H-Series HTLV systems can go beyond single-purpose space heating alone. The H-Series space heating unit operates with 100% outside air, cycling on and off according to space temperature demands. Yet, with a variety of airflow and control options, H-Series systems can do more, enhancing value by adding variable-volume ventilation capabilities.

Low total cost with complete installation flexibility. *AbsolutAire* H-Series space heating systems are precisely sized to meet specified facility design requirements at a low BTU per CFM cost, yet ensure many value-added system operating capabilities. All H-Series heaters are pre-piped and pre-wired to minimize installation costs, and each is 100% factory tested for build quality and operating performance. Upright and horizontal models can be installed indoors or out, through-wall, rooftop or indoor-suspension mounted.

AbsolutAire is a leading direct-fired heating specialist with a solid reputation for quality, equipment design excellence, advanced technologies, DDC and BMS control systems, and attentive and thorough technical support. Our exclusive *AbsolutAire* 27-month warranty on parts and 90 days on labor is unequalled.



HTLV Design Flexibility

AbsolutAire H-Series HTLV high-temperature, low-volume space heating systems offer a range of standard and optional features beyond typical blow-through HTHV space heaters.

Standard	Options
Mechanical	
<ul style="list-style-type: none"> • Horizontal or Upright Cabinets • Choice of Discharge Configurations • Weather-Resistant, Heavy-Gauge Aluminized Steel Construction • Multiple Access Doors (drop-out and/or hinged with lock-open braces) • Durable Siloxane Epoxy Paint Finish (5500 hour salt-spray rated; 8 standard colors, special colors available) • Factory Piped and Wired 	<ul style="list-style-type: none"> • Insulated Cabinet, 1" or 2" • Double-Wall Construction, 1" or 2" • Vibration Isolation, Spring or R-I-S • Inlet Hoods or Plenums for Horizontal Models • Cabinet Legs, Angle Stairs or Plenums for Uprights • Full or Duct Curb, Flat or Pitched, Insulated, Nailer • Service Platform with Ladder • Stainless Steel or Aluminum Construction • Specialty Coatings, Interior and/or Exterior
Ventilating	
<ul style="list-style-type: none"> • Heavy-Duty DWDI FC-Scrolled Fan • Fan Bearings Rated to a Minimum of 100,000 Hours (L-10 life) • High-Efficiency ODP Fan Motor (TEFC Optional) • Motor Starter and Overload Protection • Up, Down and End Discharge Airflow 	<ul style="list-style-type: none"> • Motorized Inlet or Discharge Dampers • Fan-Motor Belt Guard • Fan Bearing Lube Lines Extended to Cabinet Exterior • Multiple Filtering Choices: Aluminum, Poly-Link, Merv8, Merv13 and others • Spark-Resistant Supply Air Fan • Three- and Four-Way Discharge Diffusers, Single- or Double-Deflection • Supply-Air Duct Sections; Insulation Optional • Outside-Air (OA) or Supply-Air (SA) Plenums • Mushroom Inlet Hood with OA Plenum • External Fan Motor • EXP Motor, Damper, Panels, Sensors • Clogged Filter Switch, Magnahelic Gauge or DDC Pressure Transmitter • Field-Installed Exhaust Fans: Interlock, Volume Control (with VFD), Pressure Control or Manual Pot
Heating/Cooling	
<ul style="list-style-type: none"> • Low-Maintenance, Cast-Aluminum Manifold with 416 Stainless Steel Air/Gas Mixing Plates • Automatic Gas Modulation; Natural Gas or LP • 30:1 Burner Turndown Capability • Interrupted Pilot with UV Flame Detection or Direct Spark Ignition with Flame Rod Detection; Both with Remote Reset • Low Fire Start • Discharge Temperature Controls with Temperature Dial at the Unit (on H1700 through H3 models) • Discharge Temperature Controls with Remote Temperature Dial (on H4 and larger models) 	<ul style="list-style-type: none"> • ANSI, FM or IRI Insurance Manifold • Discharge Temperature Controls with Remote Temperature Dial (for H1700 through H3 models) • Space Temperature Controls with Remote Room Thermostat • Evaporative Cooling (inlet or discharge) • CW or DX Coil Cooling • Heating Sections with Hot Water, Steam or Electric Coils • Smoke Detector • CO, CO₂, NO₂ Sensors
Electrical and Controls	
<ul style="list-style-type: none"> • Main Electrical Panel (Meets NEMA 1, 2, 3, 3R, 3S, 4, 5 and 12 requirements) • Remote Control Panel (Meets NEMA 1, 2 and 5 requirements) • Control Circuit Fusing • Non-Fused Disconnect Switch (optional on H1700) • High- and Low-Temperature Limit Switches • High- and Low-Airflow Switches 	<ul style="list-style-type: none"> • NEMA 4X Control Panel(s) • Fan Access Door Interlock Switch • DDC Controls • BACNet or LON BMS Interface • Fused Disconnect Switch • Cycle Stat • Room-Temperature Override Stat • Lighting for Interior or Control Enclosures • GFI Outlet, Powered by AbsolutAire or Others
Other	
<ul style="list-style-type: none"> • ETL Certification to ANSI/CSA Standards • 100% Factory Testing 	<ul style="list-style-type: none"> • Factory Field Startup and Owner Training • Time Clock

HTLV Application Versatility

AbsolutAire H-Series HTLV high-temperature, low-volume space heating systems offer a range of standard and optional features beyond typical blow-through HTHV space heaters.



H-Series HTLV Application Options

- Upright and Horizontal Models
- Outdoor or Indoor Installation
- Precise Airflow and Temperature Control
- Airflow Capacities 800 to 54,000 CCFM
- Heating Capacities 100 to 6,000 MBH
- HTLV Operation Available for AbsolutAire V, AA and R Series Units

HTLV Model Selection and Performance

Static Pressure Drops for Base Cabinets ¹	
Model Option ²	Inches W.C.
O or V (100% OA, Fixed or Variable)	0.80

Option/Accessory Description	
Option/Accessory Description	Inches W.C.
Inlet Hood with Birdscreen	0.05
Filtered Inlet Hood (Includes 1" Aluminum Mesh Filters) ³	0.10
Motorized Inlet Damper	0.10
Motorized Discharge Damper	0.18
3-Way Single-Deflection Diffuser Head	0.25
3-Way Double-Deflection Diffuser Head	0.35
4-Way Single-Deflection Diffuser Head	0.20
4-Way Double-Deflection Diffuser Head	0.25
Side Access Filter Section (2" 30% Pleated) ³	0.35
Side Access Filter Section (1" Aluminum Mesh) ³	0.10
ADD for 2" Aluminum Mesh Filters on Above Options ³	0.05
Evaporative Cooling Section (with 6" Thick Media)	0.15
Evaporative Cooling Section (with 12" Thick Media)	0.30
Typical CW or DX Coil Box ⁴	0.60 – 0.90
Typical Steam Or HW Coil Box ⁴	0.30 – 0.40

NOTES:

1. Data applies to Horizontal and Upright Models. Add 0.10 to total static pressure on all units with G12 or smaller blower.
2. Base cabinet static pressure drops are calculated using 25°F entering air temperature and 90°F exiting air temperature. Static pressure drops for filter sections, inlet hoods and other options/accessories must be added.
3. This includes the initial static pressure drop of "clean" filters.
4. Consult factory for exact coil losses for the application.

Important: On units with a filter option, the filters should be changed when the pressure drop is excessive. Consult factory for change recommendations for various filter options.

Total Static Pressure Drop: After adding the losses from the base cabinet, options and accessories, also add project-specific ductwork losses. These are user provided.

Maximum MBH Capacities ¹		
Model	100% OA Models ²	
	Natural Gas	LP Gas
H1700	239	185
H3000	375	350
H1	827	623
H2	1,203	907
H3	1,428	1,077
H4	2,105	1,587
H5	3,007	2,267
H6	3,910	2,948
H7	5,263	3,968
H8	7,592	5,870

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. On 100% Outside Air (OA) models, selections are limited to the lesser of the Maximum MBH shown or a temperature rise of 143°F for natural gas or 100°F for propane (LP) gas. (For H1700 and H8 Models, 131°F ΔT with natural gas and 95°F ΔT with propane.)

Gas Manifold Sizing			
Gas Manifold Size (Inches)	Maximum Capacity (MBH)	Min. Pressure Required at Max. MBH (Inches W.C.) ¹	Max. Inlet Gas Pressure
0.5 ²	290	8	14"
0.75	625	9	14"
1.00	1,200	13	1#
1.25 ³	2,100	14	5#
1.50 ³	2,700	17	5#
2.00 ³	6,000	22	5#

NOTES:

1. 3 inches W.C. less with low-pressure burners.
2. Direct ignition only.
3. Larger manifolds may provide higher MBH capacities if the available gas pressure is higher than the minimum required pressure shown. Consult factory.

For low-inlet-gas-pressure options, consult factory.

HTLV Blower Fan and Motor Requirements

Option/Accessory Description															
Unit CFM	Model	Fan and Motor Requirements @ Total Static Pressure Shown												Outlet Velocity (FPM)	
		1.00"		1.25"		1.50"		1.75"		2.00"		2.50"			
		FAN	BHP	FAN	BHP	FAN	BHP	FAN	BHP	FAN	BHP	FAN	BHP		
800	H1700	10-4	0.30	10-4	0.35	10-4	0.41	10-4	0.47	10-4	0.55	CF		1,509	
1,250		10-4	0.59	10-4	0.66	10-4	0.74	10-4	0.83	10-4	0.91	10-4	1.11	2,358	
1,700		9-7	0.80	9-7	0.88	9-7	0.97	10-4	1.36	10-4	1.47	10-4	1.69	2,615	
1,900		10-8	0.73	9-7	1.10	9-7	1.20	9-7	1.30	10-4	1.79	10-4	2.06	2,346	
2,200		10-8	0.95	10-8	1.09	10-8	1.21	10-8	1.32	10-8	1.44	10-8	1.70	2,716	
2,000	H3000	10-8	0.81	10-8	0.91	10-8	1.05	10-8	1.15	10-8	1.27	10-8	1.50	2,469	
2,500		10	1.05	10	1.17	10	1.30	10	1.43	10	1.58	10	1.86	2,451	
3,000		10	1.43	10	1.62	10	1.77	10	1.92	10	2.12	10	2.43	2,941	
3,500		10	2.06	10	2.23	10	2.41	10	2.57	10	2.74	10 HD	3.18	3,431	
3,500	H1	12	1.38	12	1.58	12	1.75	12	1.93	12	2.16	12	2.54	2,431	
4,500		15	1.66	15-11	2.18	15-11	2.40	15-11	2.63	15-11	2.86	15-11	3.42	2,239	
5,500		15	2.42	15	2.68	15	2.96	15	3.33	15	3.63	15	4.24	2,736	
4,500	H2	15	1.66	15-11	2.18	15-11	2.40	15-11	2.63	15-11	2.86	15-11	3.42	2,239	
5,500		15	2.42	15	2.68	15	2.96	15	3.33	15	3.63	15	4.24	2,736	
6,500		15	3.51	15	3.78	15	4.08	15	4.39	15	4.72	15	5.50	3,234	
8,000		15	5.80	15	6.07	15	6.38	15	6.71	15	7.06	15 HD	7.93	3,980	
6,000	H3	15	2.88	15	3.24	15	3.53	15	3.83	15	4.14	15	4.78	2,985	
7,150		18	2.87	18	3.35	18	3.74	18	4.13	18	4.53	18	5.46	2,491	
8,300		18	3.83	18	4.30	18	4.74	18	5.30	18	5.75	18	6.67	2,892	
9,500		18	5.13	18	5.63	18	6.14	18	6.64	18	7.15	18	8.30	3,310	
10,000	These Models Have Heavy Duty Fans (HD) Included	H4	20 HD	3.90	20 HD	4.36	20 HD	4.85	20 HD	5.47	20 HD	5.99	20 HD	7.10	2,381
12,000			20 HD	5.69	20 HD	6.22	20 HD	6.77	20 HD	7.33	20 HD	8.02	20 HD	9.22	2,857
14,000			20 HD	8.04	20 HD	8.65	20 HD	9.27	20 HD	9.89	20 HD	10.71	20 HD	12.02	3,333
13,000		H5	22 HD	5.65	22 HD	6.28	22 HD	6.93	22 HD	7.73	22 HD	8.44	22 HD	9.92	2,549
15,000			22 HD	7.67	22 HD	8.36	22 HD	9.07	22 HD	9.80	22 HD	10.75	22 HD	12.34	2,941
17,000			22 HD	10.27	22 HD	11.02	22 HD	11.79	22 HD	12.58	22 HD	13.40	22 HD	15.30	3,333
20,000			22 HD	14.98	22 HD	16.03	22 HD	16.89	22 HD	17.77	22 HD	18.68	CF	CF	3,922
18,000		H6	25 HD	7.19	25 HD	8.12	25 HD	8.97	25 HD	9.86	25 HD	10.96	25 HD	12.89	2,683
20,000			25 HD	9.00	25 HD	9.88	25 HD	10.98	25 HD	11.92	25 HD	12.88	25 HD	14.90	2,981
22,000			25 HD	11.19	25 HD	12.15	25 HD	13.12	25 HD	14.12	25 HD	15.35	25 HD	17.46	3,279
24,000			25 HD	13.51	25 HD	14.57	25 HD	15.88	25 HD	16.88	25 HD	17.97	25 HD	20.38	3,577
26,000			25 HD	16.30	25 HD	17.49	25 HD	18.65	25 HD	19.81	25 HD	21.16	25 HD	23.51	3,875
26,000		H7	30 HD	10.27	30 HD	11.39	30 HD	12.55	30 HD	13.76	30 HD	15.23	30 HD	17.88	2,796
30,000			30 HD	13.71	30 HD	14.98	30 HD	16.47	30 HD	17.78	30 HD	19.13	30 HD	22.13	3,226
35,000			30 HD	19.39	30 HD	21.08	30 HD	22.57	30 HD	24.06	30 HD	25.74	30 HD	28.81	3,763
34,000		H8	36 HD	13.87	36 HD	15.56	36 HD	17.05	36 HD	18.57	36 HD	20.31	36 HD	23.54	2,656
38,000			36 HD	17.67	36 HD	19.30	36 HD	21.14	36 HD	22.80	36 HD	24.48	36 HD	28.12	2,969
42,000			36 HD	22.03	36 HD	23.86	36 HD	25.91	36 HD	27.74	36 HD	29.57	36 HD	33.77	3,281
46,000			36 HD	27.10	36 HD	29.15	36 HD	31.76	36 HD	33.72	36 HD	35.74	36 HD	39.75	3,594
50,000			36 HD	33.21	36 HD	35.54	36 HD	37.81	36 HD	40.48	36 HD	42.68	36 HD	47.03	3,906
54,000	36 HD		39.65	36 HD	42.67	36 HD	45.17	36 HD	47.62	36 HD	50.47	36 HD	55.20	4,219	

NOTES: Outlet Velocity listed is for fan size shown in the 1.00" TSP column.

HD Designation = Heavy-Duty Fans with Pillow Block Bearings. All other fans have sleeve ball bearings.

CF = Consult Factory.

All BHP's listed include drive losses. Fan performance based on 750' elevation and 70°F discharge temperature.

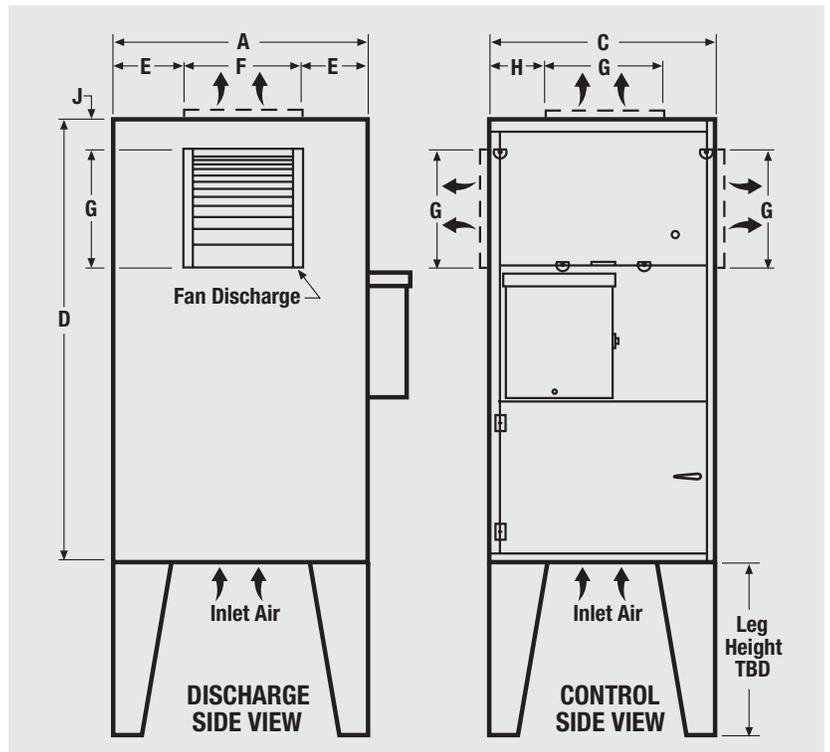
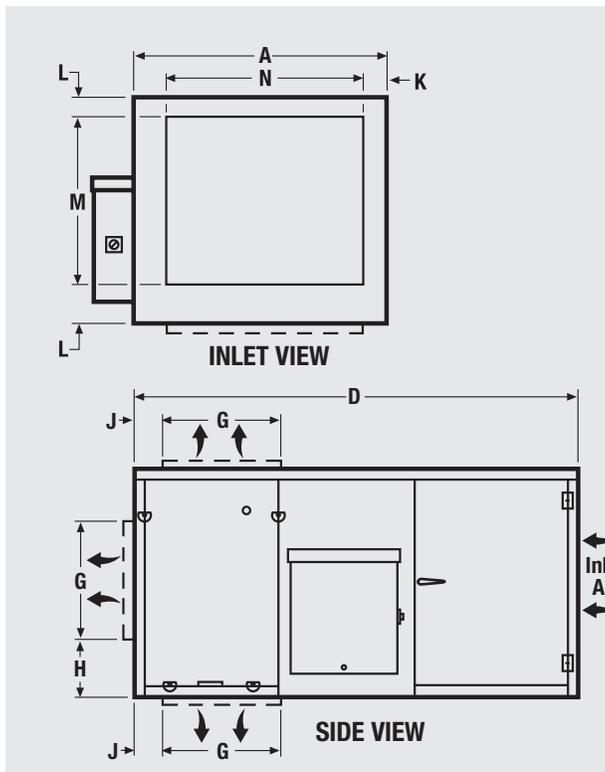
This data is subject to change without notice. Consult factory for specific applications.

HTLV Dimensional Data

Horizontal Cabinets / Upright Cabinets													
Model	Unit Size (Inches)				SA Discharge Openings (Inches)					O.A. Openings (Inches)			
	A	B	C	D	E*	F*	G*	H*	J*	K	L	M	N
H1700	28	24	24	50	CF	6-7/8	11-3/8	6-7/16	6-1/2	N/A	N/A	16	16
H3000	32	28	28	72	9-7/16	13-1/8	11-3/8	6-7/16	6-1/2	3-3/4	5	18	22
H1	40	33	33	92	10-11/16	18-5/8	15-7/8	8-3/4	6	4-9/16	4	25	29
H2	40	33	33	92	10-11/16	18-5/8	15-7/8	8-3/4	6	4-9/16	4	25	29
H3	48	38	38	92	13-1/16	21-7/8	18-7/8	10-3/8	6	4-9/16	6	26	36
H4	55	47	47	92	15-1/8	24-3/4	24-3/4	11-1/4	11-1/4	4-9/16	7-1/2	32	41
H5	74	54	54	102	23-3/8	27-1/4	27-1/4	12-1/4	12-1/4	3-13/16	7	40	60
H6	74	54	54	102	21-3/8	31-1/4	31-1/4	13-1/2	13-1/2	3-13/16	7	40	60
H7	90	70	70	138	26-5/8	36-3/4	36-3/4	16-3/4	16-3/4	3-11/16	10	50	76
H8	98	78	77	146	27-5/8	42-3/4	42-15/16	14-13/16	14-13/16	6	6	66	80

NOTES: N/A = Not Available CF = Consult Factory TBD = To Be Determined * = Dimensions are for maximum fan size
 This data is subject to change without notice.

Horizontal Cabinets



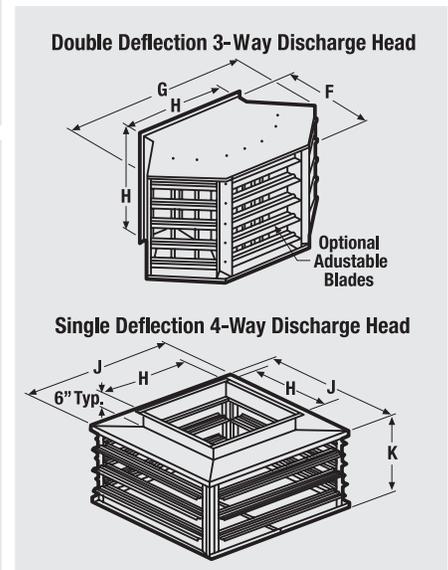
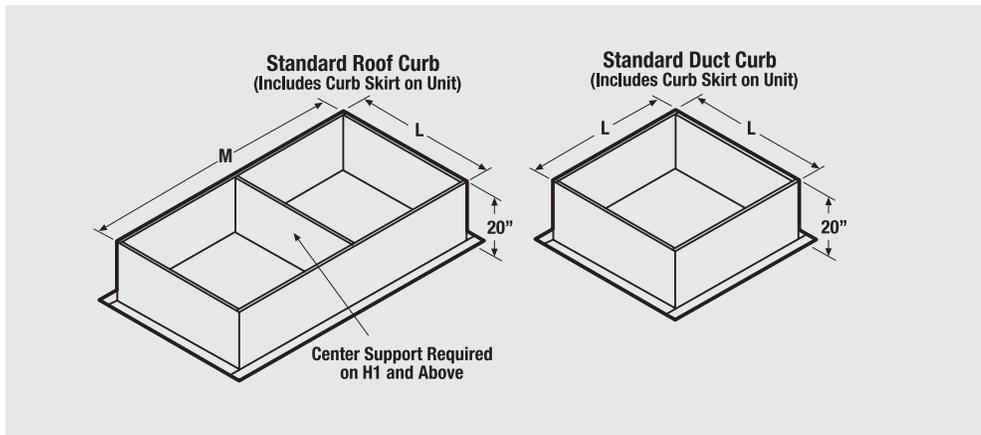
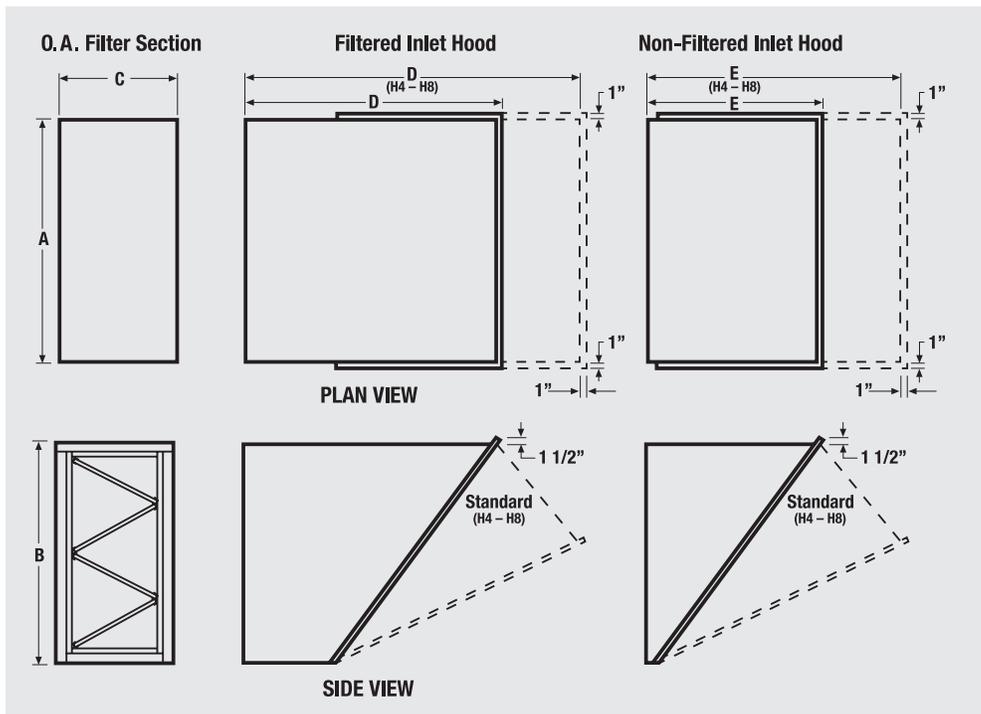
Upright Cabinets

HTLV Dimensional Data

Options & Accessories

Model	Dimensions for Options & Accessories (Inches)											
	A	B	C	D	E	F ¹	G ¹	H ¹	J	K	L ²	M ²
H1700	28	24	15	24	24	19-1/16	28-1/8	14	25-1/2	12	24	46
H3000	32	28	36	22-1/2	24-3/8	19-1/16	28-1/8	14	25-1/2	12	28	68
H1	40	33	36	26-1/2	26-1/4	20-9/16	33-1/4	19	30-1/2	16	36	88
H2	40	33	36	26-1/2	26-1/4	20-9/16	33-1/4	19	30-1/2	16	36	88
H3	48	38	36	26-1/2	35-5/8	21-1/2	36-3/8	22-1/4	33-3/4	17	44	88
H4	55	47	36	74	56	22-5/16	39-1/8	25	45-7/8	18	51	88
H5	74	54	36	91	73	23-3/16	42-1/8	28	48-7/8	24	70	98
H6	74	54	36	91	73	24-5/16	46-1/8	32	52-7/8	26	70	98
H7	90	70	36	84	84	26-1/4	52-1/8	38	64-1/2	30	85	133
H8	98	78	36	84	84	28	58-1/4	44	70-1/2	35	93	141

NOTES: N/A = Not Available 1 = Dimensions are for maximum fan size 2 = Curb dimensions are for base unit only
 This data is subject to change without notice.



FAQs ... *AbsolutAire*[®] HTLV Space Heating Systems

Q What is the difference between a draw-through *AbsolutAire* H-Series HTLV space-heating system and a blow-through HTHV space heater?

A This simply involves the arrangement of the direct gas-fired burner and the fan motor/blower. The H-Series is a “draw-through” design with the gas burner upstream of the fan motor/blower, while an HTHV unit is a “blow-through” design with the fan upstream of the burner. Draw-through is most widely used, since the air-delivery system can compensate for volume expansion as the air is heated. Some argue that exposing the motor and fan bearings to the heated air can reduce their service life. This is certainly not true, proven by many years of durable reliability, even with the most demanding heating loads and operating conditions. *AbsolutAire*’s design engineers configure our systems to ensure minimal direct heat exposure on critical path components including the fan motor and bearings.

Q How important is the 160°F discharge air temperature (DAT) or 160°F maximum temperature rise (TR) that is promoted as an advantage for blow-through HTHV units?

A That is not a true competitive edge at all. The maximum temperature rise allowed by ANSI standards for all direct-fired heaters is 160°F for 100% outside air (OA) models. This ANSI limit is required during testing for ETL/CSA certification of any manufacturer of direct-fired heating equipment. The only time a “full 160°F ΔT ” can be applied (and adhere to ETL/CSA certification) is when the outside temperature is 0°F or below. Regardless of the ΔT certification, the most cost-effective direct-fired system must meet the building’s heating load (MBH) with sufficient ventilation (CFM) to distribute the heat evenly, minimizing both gas consumption and blower electrical needs.

Q What are some of the potential drawbacks with a 100% OA blow-through high-velocity system, which does not have the design flexibility or application versatility of an H-Series draw-through system?

A Possibly the single biggest drawback is that the space where heated air is directed must always remain unrestricted. Floor plans are less flexible, since any obstruction in the airflow path could lead to poor air mixing, cold spots and reduced IAQ and occupant comfort. When such problems arise, the most common recommendation is to add “Casablanca” type ceiling fans to provide better air distribution. Other drawbacks can include greater potential for stratification, condensation and building skin losses. Such systems should never be installed in buildings with variable process exhaust, seasonal infiltration changes or poor insulation.

Q How can the manufacturer of blow-through HTHV space heaters claim to provide significant cost savings over draw-through space heating systems?

A Engineering studies (and number crunchers!) can reach whatever conclusions are wanted, without taking into account the actual, real-world building design and usage requirements or climate conditions that may have dictated the choice of a given space heating or ventilating system. Reaching “energy-saving conclusions” based only on building size, ceiling height and wall insulation – and the needed MBH/CFM to handle the heating load – does not follow logic. Both HTLV and HTHV space heaters can save 20% on energy (gas) costs versus a comparably sized indirect-fired gas heater.

HTLV System Comparisons

In a competitive analysis, *AbsolutAire* H-Series HTLV space heating systems are equal or superior alternatives to typical blow-through HTHV space heaters.

Standard Feature, Operating Performance	<i>AbsolutAire</i> ® H-Series HTLV Space Heating	Blow-Through HTHV Space Heaters	Competitive Analysis/Comments
Basic Operating Considerations			
CFM Range	800 to 54,000 (R-Series to 130,000 CFM)	1,850 to 14,380	AbsolutAire Superior
MBH Range	100 to 17,623 MBH	400 to 3,400 MBH	AbsolutAire Superior
ANSI Certification(s)	Z83.4 / CSA3.7 (100% OA)	Z83.4 / CSA3.7 (100% OA)	Equal
ASHRAE 90.1 Compliant	Yes	Yes	Equal
Installed on LEED Projects	Yes	Yes	Equal
Burner Efficiency	92% Thermal + 8% Latent	92% Thermal + 8% Latent	Equal
CO (carbon monoxide) Δ	≤ 5 ppm	≤ 5 ppm	Equal
NO _x (nitrogen dioxide) Δ	≤ 0.5 ppm	≤ 0.5 ppm	Equal
Maximum Temp. Rise ΔT, 100% OA	143°F (H-Series) 125°F (R-Series)	160°F	HTHV Superior
ANSI Maximum Discharge Air Temp., 100% OA	160°F	160°F	Equal
Natural or LP Gas Capable	Yes	Yes	Equal
Airflow Options	100% OA Constant or Variable Volume	100% OA Constant Volume	AbsolutAire Superior
Supply Fan Location	Downstream of Burner	Upstream of Burner	Equal
Unit Configuration	Horizontal and Upright	Horizontal and Upright	Equal
Standard Features			
Cabinet Construction	Welded	Interlocked and screwed wall seam and roof panels.	AbsolutAire Superior
Mounting Options	Curb, pad, rails, suspended, legs, stand.	Curb, pad, rails, suspended, legs, stand.	Equal
Unit Housing	16/18 Gauge Aluminized Steel (model dependent)	G-90 Galvanized Steel (Gauge Unknown)	Unknown
Cabinet Finish	2-Coat Siloxane Epoxy	Powder Coat Gray	Equal
Access Doors	Hinged and Lift Off	Lift Off	AbsolutAire Superior
Supply Fan	DWDI FC Centrifugal Class 1-2 G-90 Galvanized Steel	DWDI FC Centrifugal Class 1-2 G-90 Galvanized Steel	Equal
Fan Bearing Life	L-10 100,000 Hours Minimum	Unknown	Unknown
Direct Fired Burner	High-efficiency Maxon or Midco burners with aluminum gas manifolds and stainless steel air/gas mixing plates.	Specialty proprietary design burner with stainless steel air/gas mixing plates; gas manifold construction unknown.	Maxon and Midco burners for direct-fired systems are leading designs for high performance, efficiency and reliability.
Burner Profile Adjustment (compensate for varying external static conditions)	Automatic Profile Adjustment	Automatic Profile Adjustment	Equal
Gas Train Enclosure	Yes	Optional	AbsolutAire Superior
Discharge Temp Controls	Yes	Yes	Equal
Low Fire Start	Yes	Yes	Equal
Single-Point Electrical Connection	Yes	Yes	Equal
Gas Inlet (extended to cabinet exterior)	Yes	Yes	Equal
Safety and Blocking Gas Valves	Yes	Yes	Equal
Electronic Flame Modulation	Yes	Yes	Equal
Remote Reset Flame Safeguard	Yes	Unknown	Unknown
High and Low Air Flow Switches	Yes	Yes	Equal
Low Temperature Limit Switch	Yes	Optional	AbsolutAire Superior
High Temperature Limit Switch	Yes	Yes	Equal
Supply Fan Motor Starter	Yes	Yes	Equal
Disconnect Switch	Yes	Yes	Equal
End, Up, or Down Discharge	Yes	Yes	Equal
Remote Control Panel	NEMA 1, 2, 5	NEMA 1	AbsolutAire Superior
Main Electrical Panel (Unit)	NEMA 1,2,3,3R,3S,4,5,12	NEMA 4	AbsolutAire Superior
Warranty (Limited)	Parts: 27 months from date of shipment, 5 Years Burner, Labor: 90 days from date of shipment	Parts: 24 months from date of shipment, 5 Years Burner.	AbsolutAire Superior
Optional Features			
High Velocity Discharge Nozzle(s)	Yes	Yes	Equal
Downturn Elbow & Insulated Duct	Yes	Yes	Equal
Cabinet Insulation	Yes	Yes	Equal
Vibration Isolation	Internal or External	Unknown	Unknown
3- and 4-Way Discharge Diffusers with Single or Double Deflection	Yes	Single Deflection	AbsolutAire Superior
Mild Weather Inlet Stat	Yes	Yes	Equal
Temperature Setback (Unoccupied)	Yes	Yes	Equal
Installation Wiring Harness & Conduit	Yes	Unknown	Unknown
Evaporative Cooling	Yes	No	AbsolutAire Superior
CW or DX Cooling	Yes	No	AbsolutAire Superior
Hot Water, Steam or Electric Coil Heating	Yes	No	AbsolutAire Superior

Other Pure and Simple Solutions

- M-Series Make-Up Air Fan Boxes
- V-Series Direct-Fired Make-Up Air Value
- AA-Series Direct-Fired Heating & Ventilating
- R-Series Direct-Fired Heating & Ventilating
- E-Series Direct-Fired Air Turnover
- S-Series Air-Handling Systems
- I-Series Indirect-Fired Heating & Ventilating
- Spray & Bake Paint-Booth Heating Systems
- CH Temporary (Construction) Direct-Fired Heaters
- DH Door Heaters & APD Air-Process Dryers
- Coil & Evaporative Cooling Options
- Electric and Coil Heating Options
- Direct Digital Control (DDC) Systems
- Factory Field Startup and Owner Training
- Free Service Training at Factory



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