

# HV2 (High Velocity 2) Series

Indirect Gas Fired

Model Lengths: 36"–144"

Environmental Separation (up to 14')

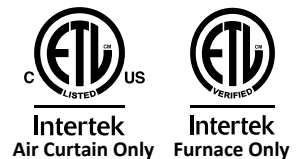
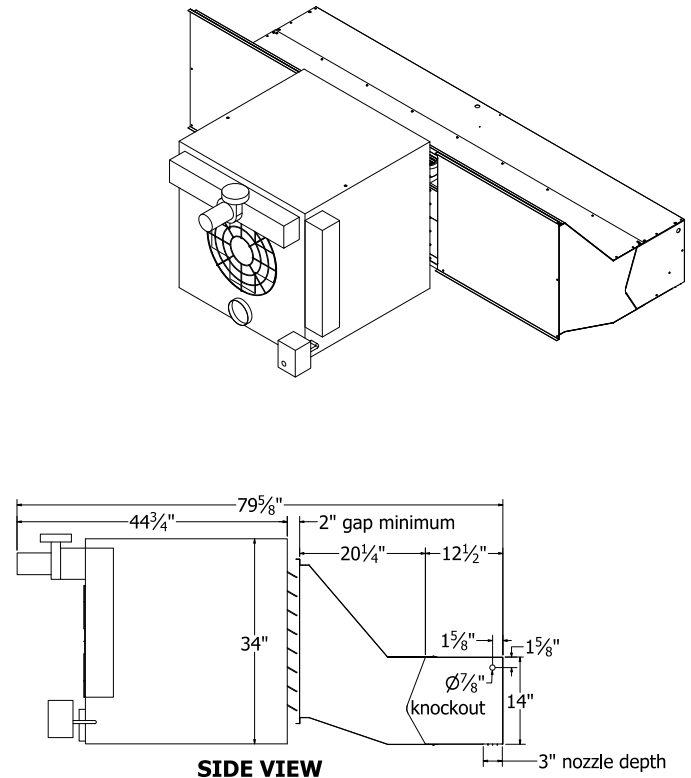
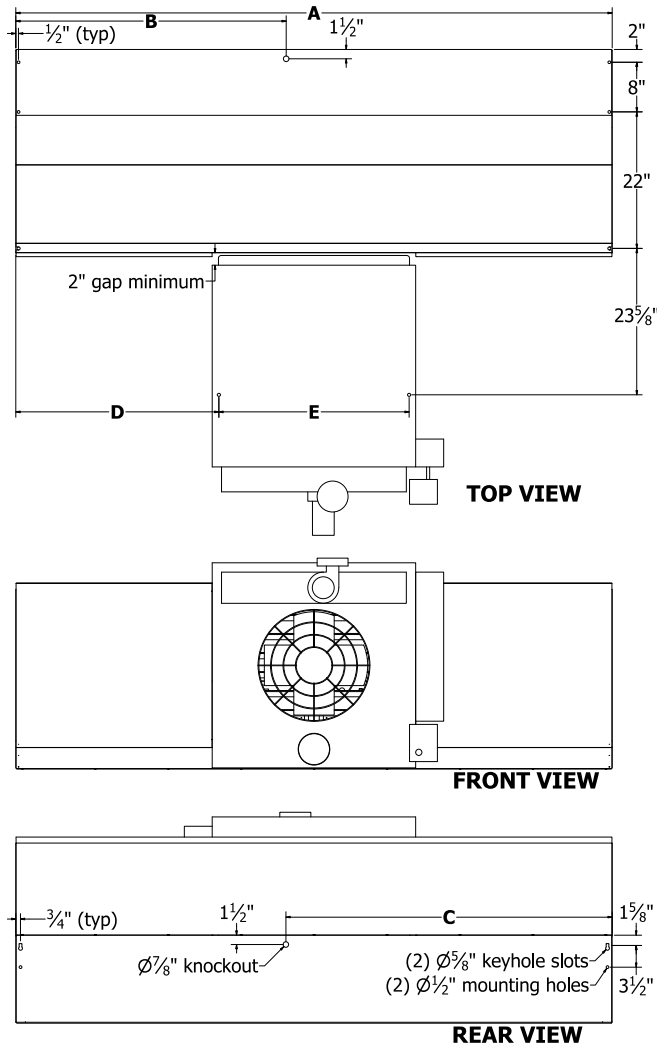
Insect Control (up to 12')



atmosphere is everything

14716 S. BROADWAY, GARDENA, CA 90248 • Ph: (310)532-1555 • Fax: (310)-532-3030 • [www.marsair.com](http://www.marsair.com)

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## Notes:

1. Internal junction boxes provided for electrical wiring: (1) 2"x4" box for one-motor units, (1) 4"x4" box for two-motor units, (2) 4"x4" box for three-motor units.
2. Recommended service clearances are 2" to the left and right sides, 24" on top, and 36" in front of the unit.
3. Circuit protection (per NEC) to be installed by others.
4. To prevent accidental damage during operation, unit must be installed so that the bottom of the air curtain does not extend below the door header.
5. Unit can be fastened to wall on both ends without intermediate support.

Model Number	Mechanical Data									Lab Data				
	Overall Length A (in)	Nozzle Length (in)	Top Knockout Location B (in)	Rear Knockout Location C (in)	Furnace Mount Offset D (in)	Furnace Mount Width E (in)	Motor (hp)	Total Weight (lbs)	Furnace Weight (lb)	Max Core Velocity at Nozzle (fpm)	Avg Velocity (fpm)	Volume (cfm)	Uniformity (%)	Power Rating (watt)
<input type="checkbox"/> HV296-2I*-TS	96	96	43 ½	52 ½	32 ¾	30 ¾	(2) 1	551	214	6144	2447	4894	88	2720
<input type="checkbox"/> HV2108-3I*-TS	108	108	31 ½	40 ½	29 ¾	48 ¾	(3) 1	733	311	6000	2745	6177	90	3735
<input type="checkbox"/> HV2120-3I*-TS	120	120	35 ½	44 ½	35 ¾	48 ¾	(3) 1	767	325	6060	2678	6693	93	3615
<input type="checkbox"/> HV2144-3I*-TS	144	144	43 ½	52 ½	47 ¾	48 ¾	(3) 1	822	339	6144	2447	7341	88	4080

\* – Use corresponding letters in "Electrical Data" column headers (see page 2) to complete the model numbers.

Note: above data is for 60 Hz at 1725 RPM. For 50 Hz, RPM is 1450 with a 17% reduction in performance.

NOTE: Mars Air Systems, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions, or replacements for previously purchased equipment.

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## Standard Features:

### Air Curtain and Transition

- ❖ Air curtain ETL-certified to conform to UL 507 (US) and CSA 22.2 (Canada) standards for indoor use
- ❖ Sleek self-contained one-piece heavy-gauge corrosion-proof paint lock metal design
- ❖ Rust preventative electrostatic polyurethane powder coating
  - Standard color is Titanium Silver (TS)
- ❖ 1 HP continuous duty Totally Enclosed Air Over (TEAO) motors (NEMA 1)
- ❖ Adjustable air directional vanes with 40° sweep front to back
- ❖ Transition is shipped KD (Knocked Down) to minimize freight and storage expenses
- ❖ Transition pieces are provided with pilot holes for easy field assembly (Hardware included)
- ❖ 12-month parts warranty
- ❖ Freight not included
- ❖ Proudly made in the USA

### Indirect Gas Fired Furnaces

- ❖ ETL verified to be 83% efficient
- ❖ In-shot burner technology
- ❖ Aluminized tubular heat exchanger (20 gauge)
- ❖ Positive pressure 120V impellers (separate 115V, 1Ø power required)
- ❖ Power vented exhaust
- ❖ Single stage gas valve
- ❖ Standard direct spark ignition
- ❖ Certified for Category I and III Venting
- ❖ Natural Gas
- ❖ Factory test fired
- ❖ Overhead mounting hardware provided (2 per furnace)

## Mars Recommended Accessories (see [catalog](#) for complete listing):

- ❖ [Door Limit Switches](#) (\$) ☐ 99-125, Industrial surface mounted magnetic switch (controller required)
  - ❖ [Controllers](#) (\$) ☐ MCPB-†\*-1F, [Motor Control Panel](#), 24V control voltage († = # of Motors, \* = Voltage Code) (\$) ☐ MCP-TD, Adjustable time delay, 1sec-100hr (panel required)
  - ❖ [Thermostats](#) (\$) ☐ 99-264, Thermostat, low voltage up to 24V max, single stage, single pole, R, G, W
  - ❖ [Furnace options](#) ☐ IDF-2STG, Two-stage heat exchanger ☐ IDF-SS, 409 stainless steel heat exchanger ☐ IDF-MOD-RS, Electronic modulating gas valve for room sensor (0-10Vdc/4-20mA control provided by others)
- (\$) = Shipped loose

## Sound Levels (measured at 10' in a free field):

2 Motor Unit = 73 dBA, 3 Motor Unit = 75 dBA

Model Number	Indirect Gas Fired Data					
	# of Furnaces	Input MBH per Furnaces	Total Output MBH	Temp Rise (°F)	Flue Size	Natural Gas (NPT) CONN
<input type="checkbox"/> HV296-2I*-TS	1	250	207.5	39	5" Rnd	1/2"
<input type="checkbox"/> HV2108-3I*-TS	1	300	249	43	6" Rnd	3/4"
<input type="checkbox"/> HV2120-3I*-TS	1	350	290.5	40	6" Rnd	3/4"
<input type="checkbox"/> HV2144-3I*-TS	1	400	332	42	6" Rnd	3/4"

\* – Use corresponding letters in "Voltage Code" column headers to complete the model numbers.

Gas pressure required min/max in ("wc)(kPa): Natural Gas (3.5/14) (0.9/3.5) and Liquid Propane (10/14) (2.5/3.5)

Electrical Data Full Load Amp (FLA)	Unit Voltage (Voltage Code)			Furnace 115V/1Ø
	208-230V/3Ø □ (G)	460V/3Ø □ (H)	575V/3Ø □ (I)	
<input type="checkbox"/> HV296-2I*-TS	6.6/6.4	3.2	2.6	8
<input type="checkbox"/> HV2108-3I*-TS	9.9/9.6	4.8	3.9	11.6
<input type="checkbox"/> HV2120-3I*-TS	9.9/9.6	4.8	3.9	13.8
<input type="checkbox"/> HV2144-3I*-TS	9.9/9.6	4.8	3.9	13.8

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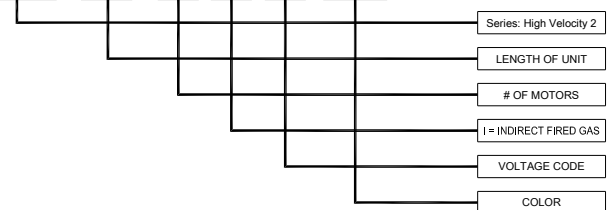
Ampacity (MCA) = total FLA x 1.25

### Alternate voltage codes with FLA data:

- 277V/1Ø/60Hz (L) – 5.2A per motor
- 220V/1Ø/50Hz (U) – 7.1A per motor
- 380-415V/3Ø/50Hz (W) – 1.8A per motor

### EXAMPLE

**HV2 144 - 3 I H - TS**



Intertek

Air Curtain Only



Intertek

Furnace Only