

HV2 (High Velocity 2) Series

Hot Water/Steam Heated

Model Lengths: 36"–144"

Environmental Separation (up to 14')

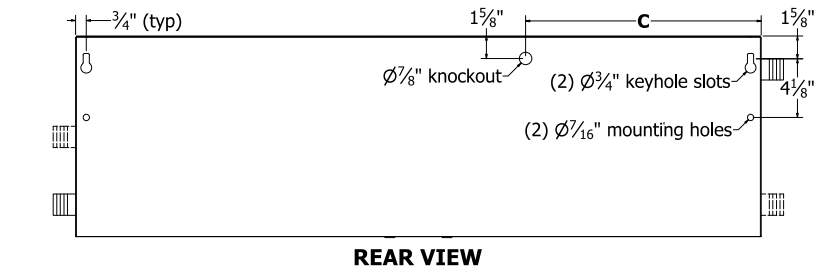
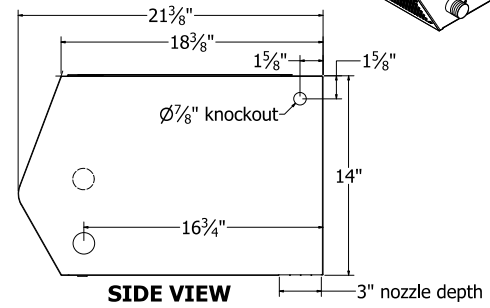
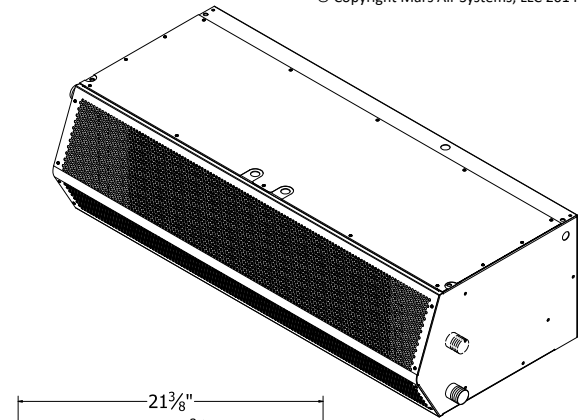
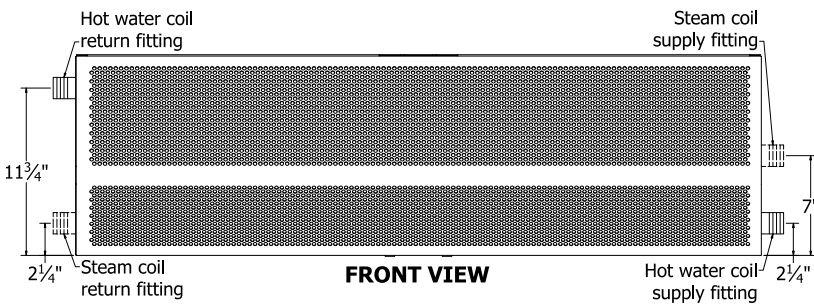
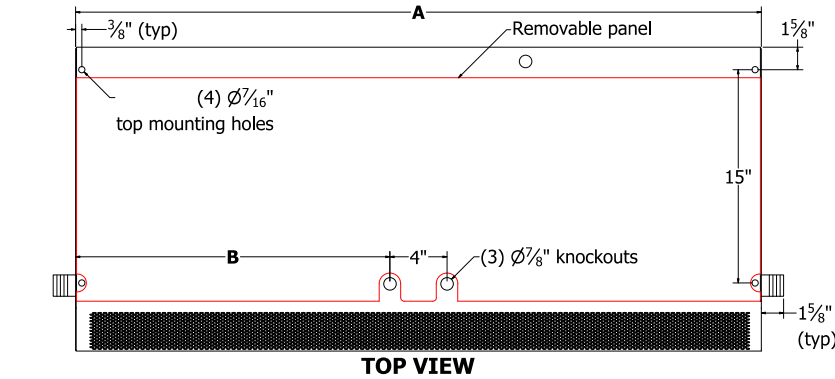
Insect Control (up to 12')



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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 12" to the left and right sides, 24" on top, and 24" 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.
6. 1 1/2" MPT coil connections.

Model Number	Mechanical Data						Lab Data				
	Overall Length A (in)	Nozzle Length (in)	Top Knockout Location B (in)	Rear Knockout Location C (in)	Motor (hp)	Weight (lb)	Max Core Velocity at Nozzle (in)	Avg Velocity (fpm)	Volume (cfm)	Uniformity (%)	Power Rating (watt)
<input type="checkbox"/> HV248-1**-TS	48	48	16 1/2	27 1/2	1	165	6144	2447	2447	88	1360
<input type="checkbox"/> HV260-1**-TS	60	60	22 1/2	33 1/2	1	190	6100	2285	2856	80	1485
<input type="checkbox"/> HV272-2**-TS	72	72	31 1/2	40 1/2	(2) 1	280	6000	2745	4118	90	2490
<input type="checkbox"/> HV284-2**-TS	84	84	37 1/2	46 1/2	(2) 1	300	6051	2654	4644	93	2610
<input type="checkbox"/> HV296-2**-TS	96	96	43 1/2	52 1/2	(2) 1	325	6144	2447	4894	88	2720
<input type="checkbox"/> HV2108-3**-TS	108	108	31 1/2	40 1/2	(3) 1	400	6000	2745	6177	90	3735
<input type="checkbox"/> HV2120-2**-TS	120	120	55 1/2	64 1/2	(2) 1	385	6100	2285	5711	80	2971
<input type="checkbox"/> HV2120-3**-TS	120	120	35 1/2	44 1/2	(3) 1	440	6060	2678	6693	93	3615
<input type="checkbox"/> HV2144-3**-TS	144	144	43 1/2	52 1/2	(3) 1	500	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.

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Standard Features:

Air Curtain

- ❖ ETL-certified to conform to UL 1995 (US) and CSA 22.2 (Canada) standards for indoor use
- ❖ Sleek self-contained one-piece heavy-gauge corrosion-proof paint lock metal design
- ❖ Fire retardant and 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
- ❖ 18 months parts warranty
- ❖ Freight included (FOB continental USA)
- ❖ Proudly made in the USA

Hot Water and Steam Coils

- ❖ Coil casings shall not be less than 16-gauge galvanized steel with tube holes formed with extruded collars
- ❖ Fins are die formed 0.006" aluminum (1 row – 10 FPI, 2 row – 8 FPI)
- ❖ Coil tubes constructed of heavy wall, 5/8" OD seamless copper (Steam – 0.035" & Hot Water – 0.025")
- ❖ Coil tubes arranged in a staggered pattern and mechanically expanded into fins to ensure a uniform pressure bond
- ❖ Manifolds shall be of heavy seamless copper construction
- ❖ All joints shall be brazed with high temperature silver brazing alloy (Steam – 7% & Hot Water – 3%), max steam operating pressure: 30 PSI
- ❖ Fittings shall be of wrought copper or similar construction such that the entire fluid circuit shall be of compatible nonferrous materials
- ❖ Manifold shall be fitted with 1/4" vent or drain fittings
- ❖ Supply fitting is on the right side of coil. Return fitting is on the left side
 - Same end connections available (see Coil Options below)

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

- ❖ **Door Limit Switches** (\$)
 - 99-125, Industrial surface mounted magnetic switch (controller required)
- ❖ **Controllers** (\$)
 - MCPB-TV*, [Motor Control Panel](#), 120V control voltage († = # of Motors, * = Voltage Code) (\$)
 - MCP-TD, Adjustable time delay, 1sec-100hr (panel required)
 - MCP-24V, Low voltage control option (panel required)
 - BMS-303, BMS for monitor and control (panel with MCP-24V required)

Note: Dry contact provided in panel for monitoring motor. 24Vac signal provided from panel for controlling motor.

- ❖ **Thermostats** (\$)
 - 99-063, Thermostat, line voltage up to 250V max, single stage, single pole
- ❖ **Brackets** (\$)
 - B0005, Adjustable mounting bracket set, 7"-13" clearance
 - B0008 to B0011, Extended wall mounting bracket set, 10", 16", 19", and 23" clearance respectively
- ❖ **Severe Duty and Finish**
 - HSG-304SS-HV/EP, 304 Stainless steel housing construction
 - INS-WD-HV2, Washdown motor fan assembly, IP54
 - INS-XP-HV2, Explosion resistant motor fan assembly, Class 1, Division 1, Group D (TENV)

Note: Washdown and explosion proof units draw higher motor amperage (see electrical data table). Control panels for these units require OL/MP with higher amperage range (use MCP-MWD or MCP-MXP accessory).

- ❖ **Coil Options**
 - HSG-COIL-LH, Accessory, Left Hand HW/S Coil Connection Adder
 - HSG-COIL-RH, Accessory, Right Hand HW/S Coil Connection Adder
 - HSG-COIL-SD, Accessory, Steam Distributing Coil Conversion (per foot)

(\$) = Shipped loose

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

Coil Data	Hot Water				Steam		
	Coil Code (X)	GPM	MBH	Temp Rise (°F)	Coil Code (Y)	MBH	Temp Rise (°F)
<input type="checkbox"/> HV248-1**-TS	2 Row	16	96	37	1 Row	91	35
<input type="checkbox"/> HV260-2**-TS	2 Row	14	115	39	1 Row	112	38
<input type="checkbox"/> HV272-2**-TS	2 Row	19	154	40	1 Row	143	37
<input type="checkbox"/> HV284-2**-TS	2 Row	15	175	35	1 Row	178	36
<input type="checkbox"/> HV296-2**-TS	2 Row	15	194	37	1 Row	198	37
<input type="checkbox"/> HV2108-3**-TS	2 Row	16	219	38	1 Row	221	38
<input type="checkbox"/> HV2120-2**-TS	2 Row	15	230	39	1 Row	237	40
<input type="checkbox"/> HV2120-3**-TS	2 Row	16	249	35	1 Row	263	36
<input type="checkbox"/> HV2144-3**-TS	2 Row	14	275	35	1 Row	304	38

* - Use corresponding letters in "Coil Code" and "Voltage Code" column headers to complete the model numbers.
EAT: 70 F, EWT: 200 F, Steam pressure: 5 PSI

Electrical Data Full Load Amp (FLA)	Unit Voltage (Voltage Code)					
	Single Phase		Three Phase			
	115V/1Ø <input type="checkbox"/> (A)	208-230V/1Ø <input type="checkbox"/> (D)	208-230V/3Ø <input type="checkbox"/> (G)	460V/3Ø <input type="checkbox"/> (H)	575V/3Ø <input type="checkbox"/> (I)	
<input type="checkbox"/> HV248-1**-TS	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> HV260-2**-TS	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> HV272-2**-TS	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> HV284-2**-TS	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> HV296-2**-TS	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> HV2108-3**-TS	27.0	15.0	9.9/9.6	4.8	3.9	
<input type="checkbox"/> HV2120-2**-TS	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> HV2120-3**-TS	27.0	15.0	9.9/9.6	4.8	3.9	
<input type="checkbox"/> HV2144-3**-TS	27.0	15.0	9.9/9.6	4.8	3.9	

* - Use corresponding letters in "Coil Code" and "Voltage Code" column headers to complete the model numbers.

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

Explosion proof motor FLA data (INS-XP-STD2):

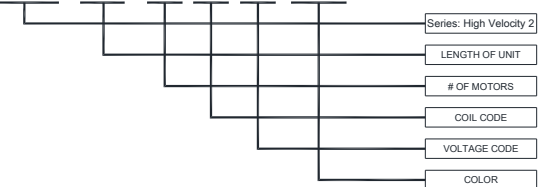
- 115V/1Ø/60Hz (A) – 12.8A per motor
- 208-230V/1Ø/60Hz (D) – 6.4A per motor
- 208-230V/3Ø/60Hz (G) – 3.5/3.2A per motor
- 460V/3Ø/60Hz (H) – 1.6A per motor

Washdown motor FLA data (INS-WD-STD2):

- 115V/1Ø/60Hz (A) – 12A per motor
- 208-230V/1Ø/60Hz (D) – 6.4/6A per motor
- 208-230V/3Ø/60Hz (G) – 3.3A per motor
- 460V/3Ø/60Hz (H) – 1.5A per motor

EXAMPLE

HV2 144 - 3 X H - TS



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1 Motor Unit = 70 dBA, 2 Motor Unit = 73 dBA, 3 Motor Unit = 75 dBA



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