

## NOTES:

- ① The Air Curtain is designed to comply with the National Electric Code (NEC). ETL listed for US & Canada.
- ② Duct Furnace(s) are CSA Certified with Single Stage Gas Valve and Aluminized Heat Exchanger and Burners.
- ③ Standard Power Venter. Flue connection field adjustable. Horizontal or Vertical flue.
- ④ Dimension C is only applicable to units with multiple furnaces.
- ⑤ Factory assembled, powder coated Transition shipped loose for field installation. Units 10' and longer, use (2) transitions side by side.
- ⑥ All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Titanium Silver color, rust preventative electrostatic polyurethane powder coating.
- ⑦ Units is to be installed such that air flow is unobstructed. Air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back.
- ⑧ Standard motor control panel, overloads are factory preset. Burner controls are interlocked with motor control panel. Standard procedure is to ship panel loose for remote mount.
- ⑨ Optional door limit switch is field installed and is to be wired to the control panel. Switch to be mounted such that the air curtain turns on as door begins to open.
- ⑩ Remote mounted thermostat field installed by others. Thermostat to regulate furnace(s) operation, must be located in which senses either the intake or discharge temperature. (Max output 90°F)
- ⑪ Circuit protection as per (NEC) by others.

**NOTE:**  
Dual Furnace model shown. For Single Furnace models, omit one dimension A and dimension C.



⑩

⑤

⑥

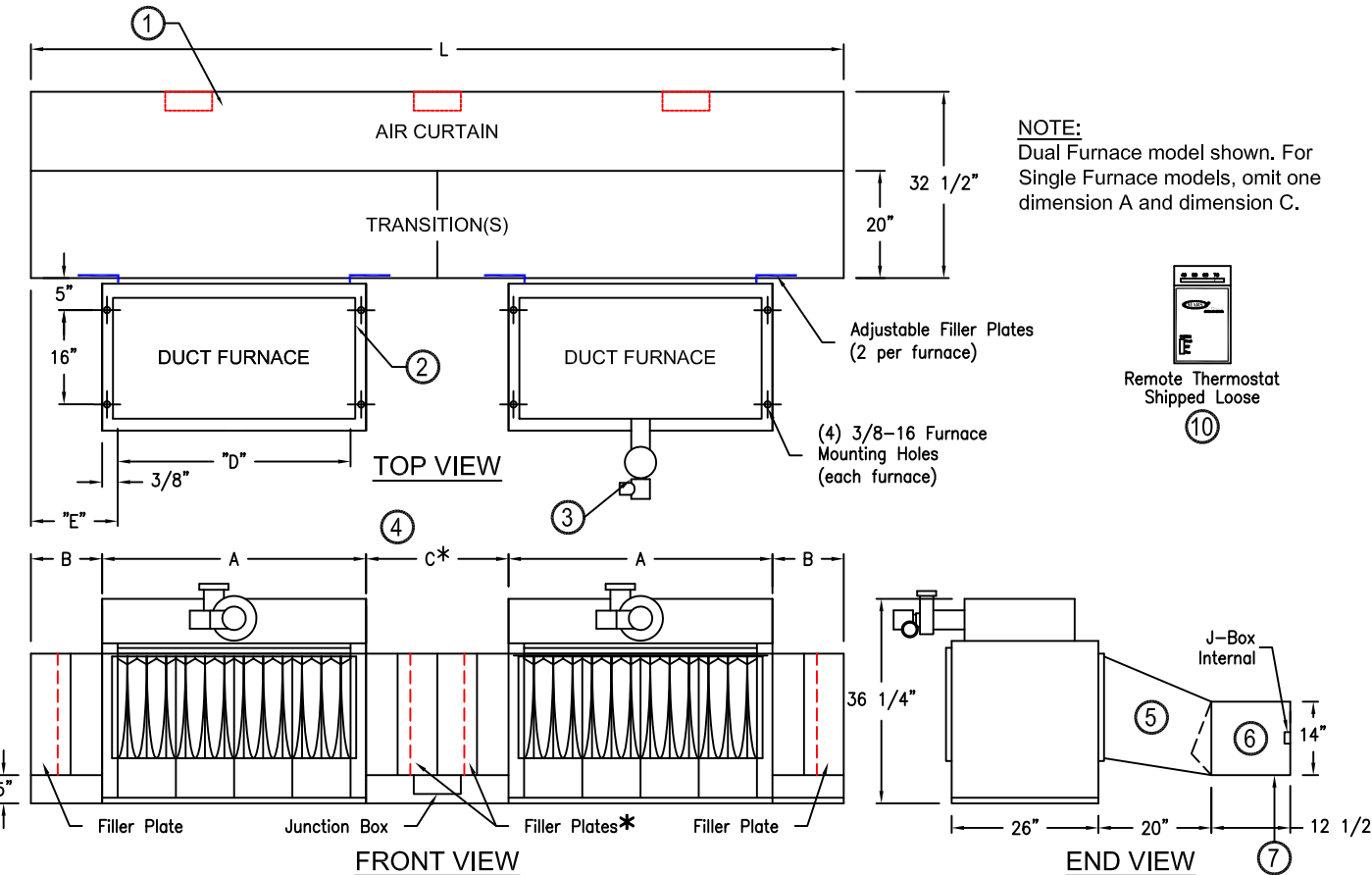
⑦



(unit)

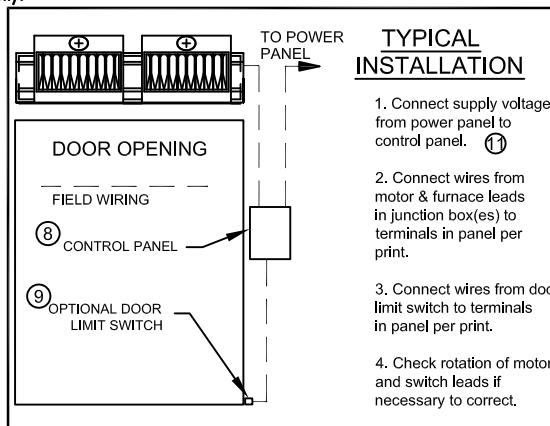


(gas heated)



-2, -3 & -4 designates the number of motors. \*Applicable to multi-furnace units only.

MODEL NUMBER	OVERALL WIDTH L	FURNACE WIDTH A	END SPACE B	CENTER SPACE C*	MTG DISTANCE D	DIM E	FURNACE SIZE (MBH)
HV248-11	48"	31 5/8"	8 3/16"	-	30 7/8"	8 9/16"	250
HV260-11	60"	31 5/8"	14 3/16"	-	30 7/8"	14 9/16"	250
HV272-21	72"	37 1/8"	17 7/16"	-	36 3/8"	17 13/16"	300
HV284-21	84"	37 1/8"	23 7/16"	-	36 3/8"	23 13/16"	300
HV296-21	96"	37 1/8"	29 7/16"	-	36 3/8"	29 13/16"	300
HV2108-21	108"	42 5/8"	32 11/16"	-	41 7/8"	33 1/16"	350
HV2108-31	108"	48 1/8"	29 15/16"	-	47 3/8"	30 5/16"	400
HV2120-21	120"	42 5/8"	38 11/16"	-	41 7/8"	39 1/16"	350
HV2120-31	120"	48 1/8"	35 15/16"	-	47 3/8"	36 5/16"	400
HV2144-31	144"	31 5/8"	20 3/16"	40 3/8"	30 7/8"	20 9/16"	2 @ 250
EP272-21	72"	48 1/8"	11 15/16"	-	47 3/8"	12 5/16"	400
EP284-21	84"	48 1/8"	17 15/16"	-	47 3/8"	18 5/16"	400
EP296-21	96"	48 1/8"	23 15/16"	-	47 3/8"	24 5/16"	400
EP2108-21	108"	48 1/8"	29 15/16"	-	47 3/8"	30 5/16"	400
EP2108-31	108"	37 1/8"	8 3/16"	16 3/8"	36 3/8"	8 13/16"	2 @ 300
EP2120-21	120"	31 5/8"	14 3/16"	28 3/8"	30 7/8"	14 9/16"	2 @ 250
EP2120-31	120"	37 1/8"	14 7/16"	22 7/8"	36 3/8"	11 13/16"	2 @ 300
EP2144-31	144"	42 5/8"	14 11/16"	29 3/8"	41 7/8"	15 1/16"	2 @ 350



PROJECT	Model No.:
LOCATION	Drawing No.:
ARCHITECT	Date
ENGINEER	Sheet of
	Drawn By:
	Checked By:

**mars**  
atmosphere is everything

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# HIGH VELOCITY 2 (HV2) 1 HP & EXTRA POWER 2 (EP2) 3 HP INDIRECT FIRED GAS HEATED AIR CURTAINS

JOB:

ARCHITECT/ENGINEER:

DRWG.:

CONTRACTOR:

SHEET

of

DATE:

MARK	INDIRECT FIRED GAS MODEL NUMBER	NO. REQ'D	LENGTH	WEIGHT (LBS)	FURNACE DATA				MOTOR FAN DATA							REMARKS	
					MBH INPUT MAX	FLUE SIZE	TEMP. RISE °F MIN	NATURAL GAS(NPT) CONN.	MOTOR HP	MOTOR RPM	VOLTS & PHASE	FLA* THREE PHASE		MAX FPM** @ NOZZLE	MAX CFM** @ NOZZLE		dBA Measured 10 ft. from NOZZLE
												208/230V	460V				
	HV248-1I		4'	545	250	5" RD	44	3/4"	1	1750		3.3/3.2	1.6	4000	4000	70	
	HV260-1I		5'	555	250	5" RD	44	3/4"	1	1750		3.3/3.2	1.6	3200	4000	70	
	HV272-2I		6'	715	300	6" RD	27	3/4"	2 @ 1	1750		6.6/6.4	3.2	5140	8000	73	
	HV284-2I		7'	735	300	6" RD	27	3/4"	2 @ 1	1750		6.6/6.4	3.2	4570	8000	73	
	HV296-2I		8'	740	300	6" RD	27	3/4"	2 @ 1	1750		6.6/6.4	3.2	4000	8000	73	
	HV2108-2I		9'	750	350	6" RD	31	3/4"	2 @ 1	1750		6.6/6.4	3.2	3600	8,000	73	
	HV2108-3I		9'	825	400	6" RD	31	3/4"	3 @ 1	1750		9.9/9.6	4.8	5500	12,000	75	
	HV2120-2I		10'	765	350	6" RD	31	3/4"	2 @ 1	1750		6.6/6.4	3.2	3200	8000	73	
	HV2120-3I		10'	840	400	6" RD	24	3/4"	3 @ 1	1750		9.9/9.6	4.8	4800	12,000	75	
	HV2144-3I		12'	1,265	2 @ 250	5" RD	30	2 @ 3/4"	3 @ 1	1750		9.9/9.6	4.8	4000	12,000	75	
	EP272-2I		6'	715	400	6" RD	30	3/4"	2 @ 3	3400		16.6/15.2	7.6	6400	9600	79	
	EP284-2I		7'	735	400	6" RD	30	3/4"	2 @ 3	3400		16.6/15.2	7.6	5485	9600	79	
	EP296-2I		8'	740	400	6" RD	30	3/4"	2 @ 3	3400		16.6/15.2	7.6	4800	9600	79	
	EP2108-2I		9'	750	400	6" RD	30	3/4"	2 @ 3	3400		16.6/15.2	7.6	4266	9600	79	
	EP2108-3I		9'	1,225	2 @ 300	6" RD	35	3/4"	3 @ 3	3400		24.9/22.8	11.4	6222	14,000	81	
	EP2120-2I		10'	1,165	2 @ 250	5" RD	37	2 @ 3/4"	2 @ 3	3400		16.6/15.2	7.6	3840	9600	79	
	EP2120-3I		10'	1,240	2 @ 300	6" RD	30	2 @ 3/4"	3 @ 3	3400		24.9/22.8	11.4	5760	14,400	81	
	EP2144-3I		12'	1,265	2 @ 350	6" RD	35	2 @ 3/4"	3 @ 3	3400		24.9/22.8	11.4	4800	14,400	81	

EQUIPMENT SPECIFICATIONS – Standard Features

GENERAL

Air curtain shall be a Mars Air Doors® brand air curtain: Type 2 Indirect Fired Gas Heated.

APPROVALS

The Air Curtain shall meet all the requirements of the National Electric Code (NEC), and is ETL listed for US and Canada. The Duct Furnace design is CSA International certified.

CABINET AND TRANSITION

Cabinet shall be a self contained one piece housing with sufficient strength for suspending with threaded rods on both ends without intermediate support. Transition(s) shipped assembled for field installation. Cabinet and Transition constructed of fire retardant, corrosion proof paint lock metal and double protected with baked on Titanium rust preventative, electrostatic polyurethane powder coating. Discharge air outlet nozzle shall be wedge shaped containing adjustable air directional vanes with 40° sweep front to back. Motor/Fan assembly to be easily accessible, through bottom of transition, for maintenance.

INDIRECT FIRED, GAS HEATED FURNACES

Heat exchanger shall be Indirect Natural Gas Fired, Power Vented Duct Furnace. Heat Exchanger and Die-formed Burners shall be constructed of Aluminized Steel with Stainless Steel Insert Burners. Manifold, Orifices, Flame Sensor and Ignitor shall be easily removable as an assembly.

FURNACE CONTROLS

Unit shall include a 24 Volt Control Transformer, Combination Single-Stage Gas Control System with a Regulated Combination Redundant Gas Valve and an Intermittent Spark Pilot with Electric Flame Supervision. The unit also includes a remote mounted 24 Volt Thermostat with a Heat & Fan, Off and Fan Only Selector Switch. The Panel includes a built-in 30 Second Fan Time Delay and HOA Switch on control panel door. The unit is to include all required limit and safety controls.

MOTORS AND BLOWER WHEELS

Motor(s) shall be totally enclosed air over (TEAO) type suitable for continuous heavy duty, all angle operation. Construction shall include sealed lifetime pre-lubricated ball bearings, resilient mounted and protected by an automatic reset thermal overload switch. Motor(s) to have double extended shaft and direct drive, double inlet, dynamically balanced forward curved squirrel cage blower wheels.

ELECTRICAL WIRING

All junction boxes are internally mounted one motor (1) – 2"x4"; two motors (1) 4"x4"; three or four motors (2) 4"x4".

GUARANTEES

Shall be 18 months on all parts.

ACCESSORIES

Refer to the optional features and accessories page.

EP2144-3IH-OB

SERIES-HV or EP

LENGTH OF UNIT

# OF MOTORS

I = INDIRECT GAS

VOLTAGE CODE

OPTIONAL COLOR

SIZE	VOLTAGE	CODE
48"-144"	208-230/3/60	G
48"-144"	460/3/60	H
48"-144"	575/3/60	I

COLOR	CODE
OBSIDIAN BLACK	OB
TITANIUM SILVER	TS
PEARL WHITE	PW
SPARTAN BRONZE	SB
BATTLESHIP GRAY	BG

MADE IN THE U.S.A.

HIGH VELOCITY 2 (HV2) 1 HP & EXTRA POWER 2 (EP2) 3 HP INDIRECT FIRED GAS HEATED AIR CURTAINS

SJ3BX 6/15/12 ML