

# PH10 (Phantom 10) Series

Hot Water/Steam Heated

Model Lengths: 36"–144"

Environmental Separation (up to 12')

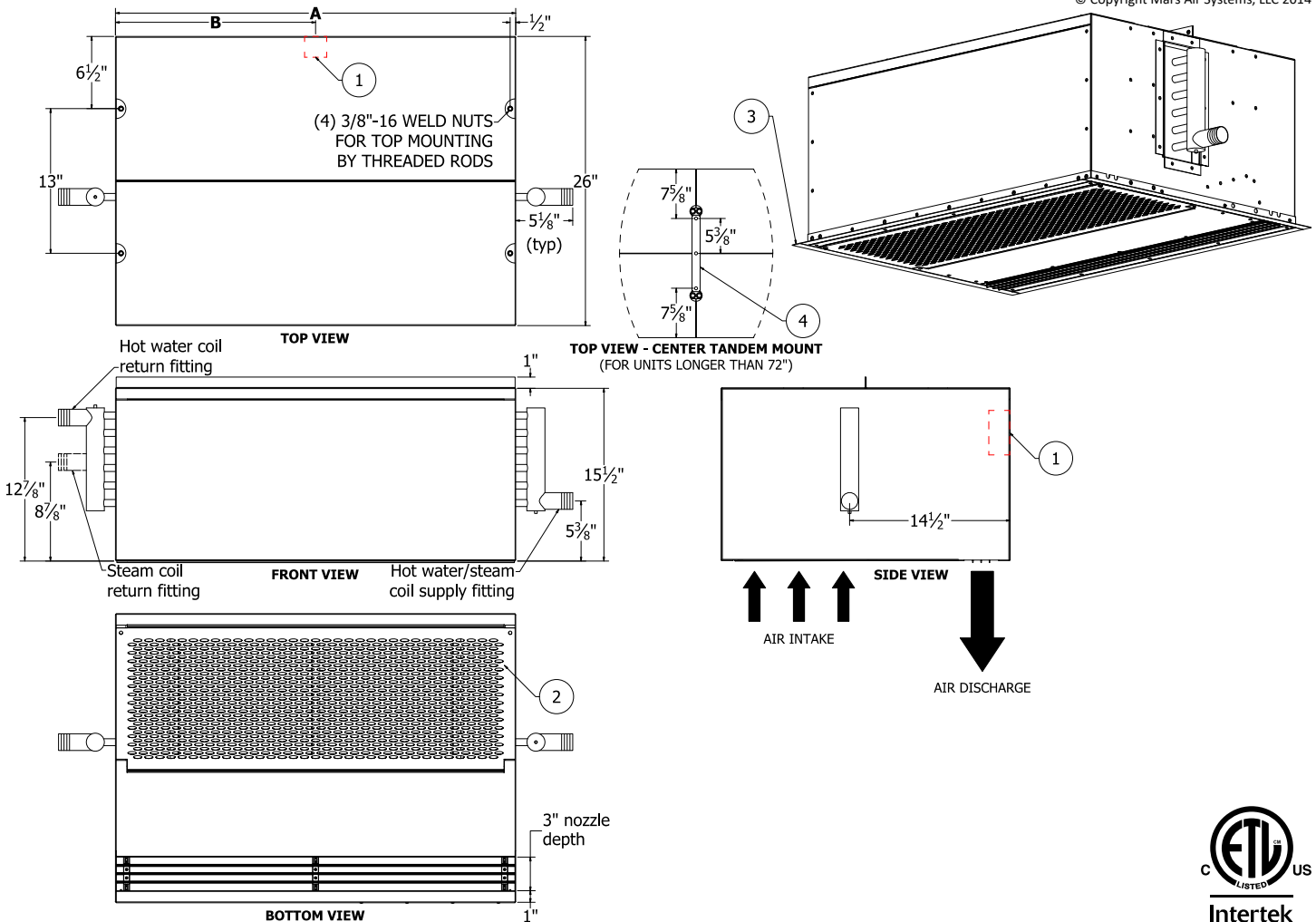
Insect Control (up to 10')



atmosphere is everything

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## Notes:

1. Internal junction box (j-box) provided for electrical wiring.
2. Cleanable polyester filters are installed standard. Optional washable aluminum or pleated paper filters are also available.
3. (4) 1" wide matching trim pieces are included and shipped loose for optional installation.
4. Recommended service clearances are 12" to the left and right sides and 18" on top of the unit.
5. Circuit protection (per NEC) to be installed by others.
6. 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.
7. Units up to 72" in width can be suspended from both ends without intermediate support. Longer units are double units and must be supported in the center.
8. 1 1/2" MPT coil connections.



Model Number	Mechanical Data					Lab Data				
	Overall Length A (in)	Nozzle Length (in)	J-box Distance from Each Edge B (in)	Motor (hp)	Weight (lb)	Max Core Velocity at Nozzle (fpm)	Avg Velocity (fpm)	Volume (cfm)	Uniformity (%)	Power Rating (watt)
<input type="checkbox"/> PH1036-1**-PW	36	36	18	1/2	76	3950	1947	1460	80	458
<input type="checkbox"/> PH1042-1**-PW	42	42	21	1/2	82	4150	1806	1580	89	496
<input type="checkbox"/> PH1048-1**-PW	48	48	24	1/2	88	3895	1632	1632	91	518
<input type="checkbox"/> PH1060-2**-PW	60	60	30	(2) 1/2	130	4250	2217	2771	93	861
<input type="checkbox"/> PH1072-2**-PW	72	72	36	(2) 1/2	138	3950	1947	2920	80	916
<input type="checkbox"/> PH1084-2**-PW	84	84	(2) 21	(2) 1/2	160	4150	1806	3160	89	992
<input type="checkbox"/> PH1096-2**-PW	96	96	(2) 24	(2) 1/2	171	3895	1632	3264	91	1036
<input type="checkbox"/> PH10108-3**-PW	108	108	(3) 18	(3) 1/2	219	3950	1947	4380	80	1374
<input type="checkbox"/> PH10120-3**-PW	120	120	(2) 21	(3) 1/2	235	4150	1848	4620	90	1450
<input type="checkbox"/> PH10144-3**-PW	144	144	(2) 24	(3) 1/2	250	3895	1632	4896	91	1554

\* – Use corresponding letters in "Coil Code" and "Voltage Code" 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 1425 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

- ❖ 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 Pearl White (PW)
- ❖ ½ HP continuous duty Totally Enclosed Air Over (TEAO) motors (NEMA 1)
- ❖ Adjustable air directional vanes with 40° sweep front to back
- ❖ 18-month 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](#) (\$) ☐ 99-018, Commercial surface mounted magnetic switch (controller required)
  - ❖ [Controllers](#)
    - ☐ MCPA-1V\*, [Motor Control Panel](#), 120V control voltage (+ = # of Motors, \* = Voltage Code) (\$)
      - ☐ MCP-TD, Adjustable time delay, 1sec-100hr (panel required)
      - ☐ MCP-HD, Heat on Demand, Hot Water/Steam (thermostat included)
      - ☐ 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
  - ❖ [Severe Duty and Finish](#)
    - ☐ HSG-304SS-PH, 304 Stainless steel housing construction
  - ❖ [Coil Options](#)
    - ☐ HSG-COIL-LH, Accessory, Left Hand HW/S Coil Connection Adder
    - ☐ HSG-COIL-RH, Accessory, Right Hand HW/S Coil Connection Adder
- (S) = Shipped loose

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

1 Motor Unit = 66 dBA, 2 Motor Unit = 68 dBA, 3 Motor Unit = 71 dBA, 4 Motor Unit = 73 dBA

Coil Data	Hot Water			Steam		
	Coil Code (W)	GPM	MBH	Temp Rise (°F)	Coil Code (Y)	Temp Rise (°F)
<input type="checkbox"/> PH1036-1**-PW	1 Row	4	40	26	1 Row	60
<input type="checkbox"/> PH1042-1**-PW	1 Row	5	47	28	1 Row	67
<input type="checkbox"/> PH1048-1**-PW	1 Row	5	51	29	1 Row	73
<input type="checkbox"/> PH1060-2**-PW	1 Row	6	74	25	1 Row	108
<input type="checkbox"/> PH1072-2**-PW	1 Row	8	87	28	1 Row	121
<input type="checkbox"/> PH1084-2**-PW	1 Row	8	96	28	1 Row	136
<input type="checkbox"/> PH1096-2**-PW	1 Row	9	106	30	1 Row	148
<input type="checkbox"/> PH10108-3**-PW	1 Row	10	127	27	1 Row	173
<input type="checkbox"/> PH10120-3**-PW	1 Row	11	130	26	1 Row	198
<input type="checkbox"/> PH10144-3**-PW	1 Row	14	153	29	1 Row	222

\* - 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 (A)	208-230V/1Ø (D)	208-230V/3Ø (G)	460V/3Ø (H)
<input type="checkbox"/> PH1036-1**-PW	5.1	2.5	1.8/1.6	0.8
<input type="checkbox"/> PH1042-1**-PW	5.1	2.5	1.8/1.6	0.8
<input type="checkbox"/> PH1048-1**-PW	5.1	2.5	1.8/1.6	0.8
<input type="checkbox"/> PH1060-2**-PW	10.2	5.0	3.6/3.2	1.6
<input type="checkbox"/> PH1072-2**-PW	10.2	5.0	3.6/3.2	1.6
<input type="checkbox"/> PH1084-2**-PW	10.2	5.0	3.6/3.2	1.6
<input type="checkbox"/> PH1096-2**-PW	10.2	5.0	3.6/3.2	1.6
<input type="checkbox"/> PH10108-3**-PW	15.3	7.5	5.4/4.8	3.4
<input type="checkbox"/> PH10120-3**-PW	15.3	7.5	5.4/4.8	3.4
<input type="checkbox"/> PH10144-3**-PW	15.3	7.5	5.4/4.8	3.4

\* - 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) – 2.7A per motor

• 220V/1Ø/50Hz (U) – 2.5A per motor

• 380-415V/3Ø/50Hz (W) – 1.1A per motor

### EXAMPLE

**PH10 72 - 2 W A - PW**

