

# General Specifications for HHP2-12" Fan Size - Horizontal and Vertical Projection Type

**Notes**

**1. Pressure/Temperature Ratings**

Pressure = 450 psig (3103 kPa)  
 Temperature = 550°F (288°C)  
 MDMT = -20°F (-29°C)

**2. Materials**

Cabinet: 14 Ga, Yellow Epoxy/Polyester Powder Coated  
 Core: Carbon Steel with Copper-free Aluminum Fins  
 Louvers: Anodized extruded aluminum

**3. Fluid Connections**

1-1/2 in. NPT male Schedule 40  
 Optional 1-1/2 in. (4 bolt) CL300# RF flanges  
 Optional 2 in. (8bolt) CL300# RF flanges <sup>^</sup>

**4. Mounting**

9/16 in. diameter holes  
 Two at top and two at bottom of heater

**5. Fan**

Spark-proof three-blade aluminum

**6. Fan Guard**

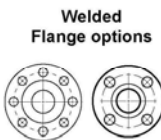
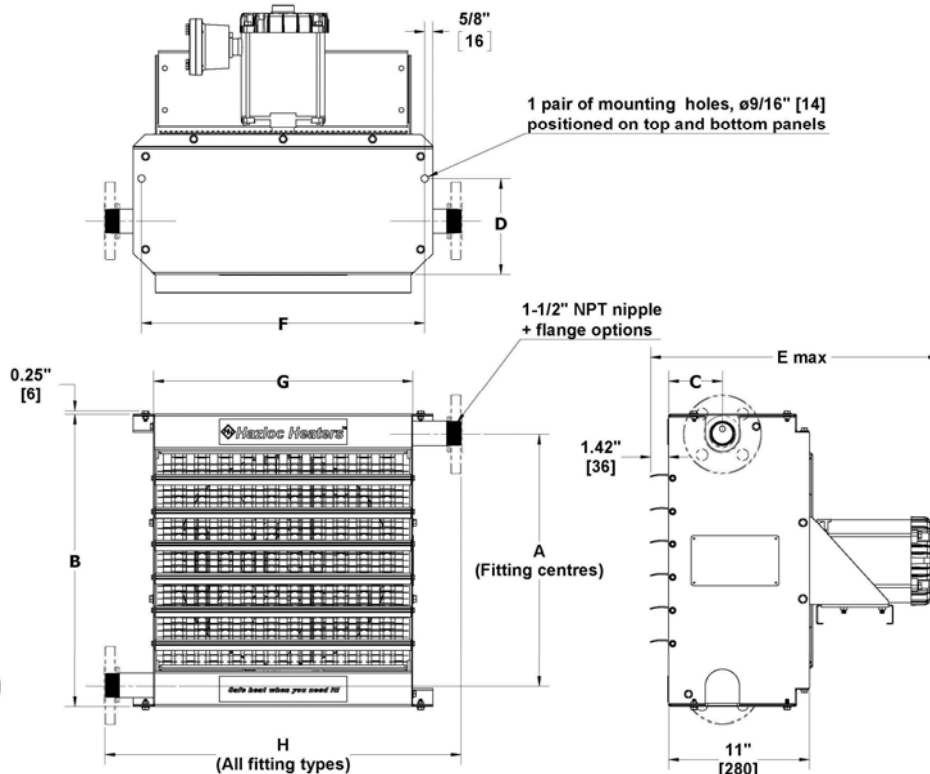
Split design with close wire spacing. A 3/8 in. (9.5 mm) diameter probe will not enter

**7. Ex-Proof Motors**

Class I, Divisions 1 & 2, Groups C & D  
 Class II, Divisions 1 & 2, Groups F & G  
 Temperature Code T3B

- <sup>^</sup> 2" 300# ANSI blind RF flange with 1-1/2" diameter hole machined in center (eight 3/4" bolt holes).
- <sup>◇</sup> Contact factory for extended shipping lead times on Heresite coated cores.
- <sup>†</sup> Standard Marathon NEMA ex-proof motor is suitable for Class I & II, Div. 1 & 2, Groups C, D, F & G; T3B. Ensure equipment meets the requirements of your hazardous location.
- <sup>\*</sup> Other voltages/frequencies available upon request. Longer lead times may apply. Contact factory.
- <sup>▶</sup> NEMA motors are designed to be operated at rated voltage with tolerances of ± 10%. If the motor is marked 208-230V the tolerance must be calculated from 230V. If motor is marked 230V it is still suitable for 208V operation but the tolerance must be calculated from 230V. For 3-phase motors the line to line full load voltage must be balanced within 1%.

Fan Size	12
Dim.	Inches (mm)
A	15.79 (401)
B	19 (483)
C	4.2 (107)
D	7.91 (201)
E	22.25 (565)
F	18.19 (462)
G	16.3 (414)
H	23.88 (607)



**Heater Model Code and Option Codes**

**Model Code**  
 HHP 2 - H - 12 - 1 - C1 - 115 1 60 - E - 1

**Option Codes**  
 H1, etc.

**Model Series**  
 HHP 2

**Generation**  
 For major revisions

**Projection Type**  
 Horizontal H  
 Vertical V

**Fan Size**  
 12 Inches 12

**Tube Passes**  
 1 Pass 1  
 3 Pass 3  
 Steam units are 1 Pass only

**Connection Type**  
 1-1/2" NPT C1  
 1-1/2" CL300# RF flange (4 bolt) C2  
 2" CL300# RF flange (8 bolt) C3<sup>^</sup>

**Options**

Option Code	Description
H1 <sup>◇</sup>	Heresite coated core
H2 <sup>◇</sup>	Heresite coated cabinet
H3 <sup>◇</sup>	Heresite coated core & cabinet
ZZ	Special build (Factory assigned code)

**Discharge Type**

Discharge Type	Description
1	One-way adjustable louvers
2	Two-way adjustable louvers
3	Nozzle
4	Four-way adjustable louvers

**Motor Type**

Motor Type	Description
G	General purpose
E <sup>†</sup>	Hazardous Location

**Motor <sup>▶</sup>**

Voltage	Phase	Frequency
115	1	60
208	1	60
230	1	60
208	3	60
230	3	60
460	3	60
575	3	60

**Note:**  
 The fan shroud is made of spark resistant aluminum compliant to AMCA 99-10, Type B

**Special Requirements/Notes:**

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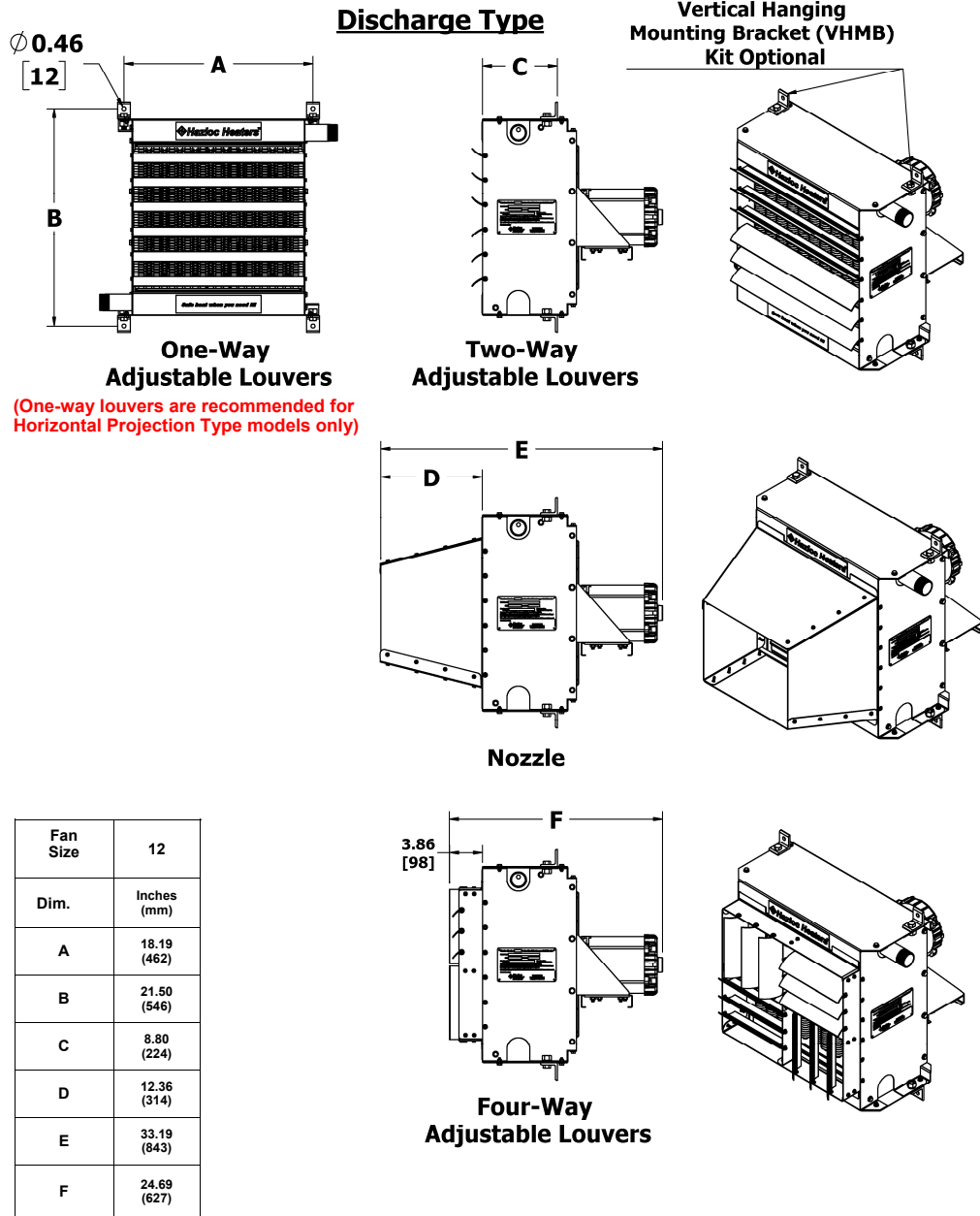


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Approval Drawing	HHP2-12" Fan Size Heater
June 7, 2021	Version 2.1
Hazloc Heaters Inc.	Calgary, Alberta



**Specifications for HHP2-12" Fan Size - Horizontal and Vertical Projection Type**



**Detailed Specifications**

Model		HHP2-12
Fan diameter	in (mm)	12 (304.8)
Air delivery *	cfm (m <sup>3</sup> /hr)	1024 (1740)
Motor power	hp (watts)	1/4 (186) or 1/3 (248)
Horizontal Projection Type with One-Way Louvers		
Horizontal air velocity *	fpm (m/s)	1227 (6.2)
Horizontal air throw * †	ft (m)	41 (12.5)
Max. mounting height * †	ft (m)	12 (3.7)
Vertical Projection Type with Two-Way Louvers (maximum mounting height is also maximum vertical air throw)		
Max. mounting height * †	ft (m)	17 (5.2)
Spread * †	ft (m)	17 (5.2)
Vertical Projection Type with Nozzle (maximum mounting height is also maximum vertical air throw)		
Max. mounting height * †	ft (m)	34 (10.4)
Spread * †	ft (m)	13 (4.0)
Vertical Projection Type with Four-Way Louvers (maximum mounting height is also maximum vertical air throw)		
Max. mounting height * †	ft (m)	12 (3.7)
Spread * †	ft (m)	12 (3.7)
Weights and Shipping Crate Dimensions (wood packaging material is in compliance with ISPM No. 15)		
Net wt. before adders	lbs (kg)	102 (46.3)
Shipping wt. before adders	lbs (kg)	152 (68.9)
Add for flanges	lbs (kg)	16 (7.3)
Add for nozzle	lbs (kg)	10 (4.5)
Add for four-way louver	lbs (kg)	6 (2.7)
Crate W X D X H	in	28.0 x 29.5 x 27.75
Crate W X D X H	mm	711 x 749 x 705

\* At 70°F (21°C), 60 Hz and sea level.

† The Air throws, Spreads and Max. Mounting heights listed above are based on an air temperature rise (ΔT) of 40°F. To determine these figures for temperature rises other than 40°F, first determine the actual air temperature rise from the performance tables in the brochure, our web based Heater Selection Tool, or factory supplied printouts, and then multiply the respective values by the Correction factor in the table below.

Air Discharge Temperature Correction Factors @ Various Temperature Differences ΔT (°F)																
Actual ΔT	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Correction	1.24	1.18	1.12	1.06	1.00	0.94	0.88	0.82	0.76	0.7	0.64	0.58	0.51	0.45	0.39	0.33

- All views are showing optional VHMB mounting bracket kit.

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