



**AccuSpec V4.23**  
**Transaction #:**

**JOB TITLE: CE-PTS150AS0111SBAN**

**Date: 07/02/2019**

**Approved By:**

Submittal review and approval required prior to listed unit(s) being released for production and shipment. Unit(s) configured based on information provided. The

Approver is responsible for ensuring the units, options, and accessories meet the job specifications.



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## SUBMITTAL SCHEDULE & DATA

### Gas- and Oil-Fired Unit Heaters, Infrared Heaters, and Indoor Duct Furnaces

Job Name: CE-PTS150AS0111SBANDate: 07/02/2019Location:Engineer:Submitted by: Sanjeev KhindariaArchitect:Contractor:

		Unit Tag	
	UH-1		
Model Number	PTS150AS0111SBAN		
Quantity of Units	1		
Btu/Hr Input	150,000		
Btu/Hr Output	123,000		
CFM	2140		
Altitude	0-2000		
Temperature Rise (degrees F)	53		
External Static Pressure (E.S.P)	0.00		
Total Static Pressure (T.S.P.)	0.00		
Gas Type	Natural		
Gas Control Type	Single Stage, Direct Spark Ignition, 100% Shut-Off with Continuous Retry		
Supply Voltage	115/60/1		
Control Voltage	24V		
Motor HP	1/6		
Motor RPM	1075		
Blower RPM	N/A		
Heat Exchanger Type	Aluminized Steel Heat Exchanger/Burner		
Unit Efficiency %	82.0		
Options & Accessories (See Attached Pages)			

Remarks \_\_\_\_\_



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## SUBMITTAL SCHEDULE & DATA

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### Gas- and Oil-Fired Unit Heaters and Infrared Heaters

Model	Description	Qty	Tag
PTS150AS0111SBAN	Propeller Unit Heater	1	UH-1
54134	PTS150AS0111SBAN	1	UH-1



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## PTS MODEL NOMENCLATURE

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1,2,3	4,5,6	7	8	9,10	11,12	13	14	15	16
PTS	150	A	S	01	11	S	B	A	N

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### 1,2,3 - Product Type

PTS - Separated Combustion Propeller Unit

### 4,5,6 - Furnace Input Rating

150 - 150,000 Btu/hr Input

### 7 - Heat Exchanger Type

A - Aluminized Steel Heat Exchanger and Burner

### 8 - Pilot Ignition

S - Direct Spark Ignition

### 9,10 - Motor and Drive Code (Power Code)

01 - 115V motor

### 11,12 - Gas and Valve/Ignition Control Type (Control Code)

11 - Natural, Single Stage, Direct Spark Ignition, 100% Shut-Off with Continuous Retry

### 13 - Fan Guard Type

S - Standard Fan Guard

### 14 - Development Sequence

B - Current

### 15 - Future

A - For Future Use

### 16 - Factory Installed Option

N - None



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**GENERAL PERFORMANCE DATA**

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**Intertek****General Performance Data****Model** PTS 150  
**At 0' Elevation**

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Btu/Hr. Input	150,000
Btu/Hr. Output	123,000
Entering Airflow (CFM)	2140
Outlet Velocity	711
Air Temp. Rise (°F)	53
Mounting Height (Max Ft.) <sup>1</sup>	15
Heat Throw (Max. Mtg. Ft.) <sup>2</sup>	51
Unit Total Power (Amps)	5.05

**As Configured at 0-2000 Ft. Elevation**

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Btu/Hr. Input	150,000
Btu/Hr. Output	123,000
Configured Air Temp Rise (°F)	53

**Motor Data**

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Horse Power	1/6
RPM	1075
Type	P.S.C.
Motor Amps at 115V	2.50

**Clearances to Combustibles**

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Top and Bottom	6"
Vent/Combustion Air Connector	6"
Access Side	6"
Non-Access Side	6"
Rear	18"

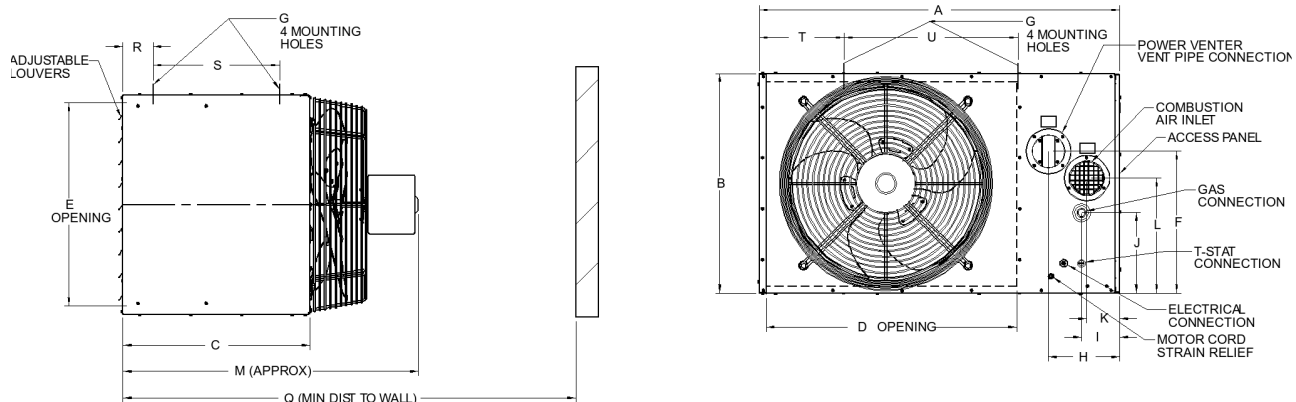
<sup>1</sup> At 65°F ambient and unit fired at full-rated input. Mounting height as measured from bottom of unit.<sup>2</sup> Heat Throws are calculated at 65°F ambient with a 53°F air temperature rise with the unit mounted at a maximum mounting height of 15 feet.



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## DIMENSIONS – UNIT

### Model PTS Dimensions



### Model Size Dimensions (inches)

### PTS150

A	35.53
B	23.06
C	22.05
D	22.52
E	21.18
F	15.33
G (Mounting Holes) 1	3/8-16
H	8.37
I	4.5

J	8.09
K	3.87
L	12.17
M	31.79
Q <sup>2</sup>	43.79
R	3.56
S	14.9
T	10
U	13.54

Gas Connection	1/2
Fan Diameter	20
Vent/Combustion Air Connection Size	4
Approx. Shipping Weight	165 lbs.

<sup>1</sup> All models have 4 holes for mounting. Listed is the hole diameter and threads per inch to accept threaded rod.

<sup>2</sup> Dimension equals overall plus 12".

## **Standards**

*All unit(s) shall include:*

C.S.A. (Canadian Standards Association) design certification for use in both the US and Canada to the ANSI Z83.8 - latest revision, standard for "Gas Unit Heater and Gas-Fired Duct Furnaces" for safe operation, construction, and performance

## **Mechanical Configuration**

Furnace(s) section with 82% minimum efficiency provided by an indirect-fired tubular heat exchanger with individually fired tubes for maximum heat transfer with minimal noise of flame ignition/extinction.

## **Venting/Combustion Air Arrangement**

The unit shall be separated combustion and no field modifications or additions shall be required or allowed to meet the ANSI Z83.8 – latest revision definition of separated combustion. The venting shall be a power exhausted arrangement with a separate combustion air intake pipe connection to allow for fresh combustion air from outside the conditioned space. The unit shall be tested to insure proper ignition when the unit is subjected to 40 mile per hour wind velocities. The unit shall also include a factory mounted differential pressure switch designed to prevent main burner ignition until positive venting has been proven.

## **Unit Casing**

The unit heater(s) casing shall be constructed of not less than 20 gauge aluminized steel with minimization of exposed fasteners.

All exterior casing parts shall be cleaned of all oils and a phosphate coating applied prior to painting. The exterior casing parts shall then be painted with an electrostatically applied baked-on gray-green polyester powder paint (7-mil thickness) for corrosion resistance.

The unit shall be furnished with horizontal air deflectors. The deflectors are adjustable to provide for horizontal directional airflow control (up or down).

## **Furnace Section**

The heat exchanger(s) shall be made of 18 gauge aluminized steel tubes and headers.

The thermal efficiency of the unit(s) shall be a minimum of 82% efficient for all air flow ranges.

Each heat exchanger tube shall be individually and directly flame-fired. The heat exchanger tube shall be crimped to allow for thermal expansion and contraction. The flue collector box shall be made of 20 gauge aluminized steel.

The heat exchanger(s) seams and duct connections shall be certified to withstand 0.9" W.C. external static pressure without burner flame disturbance.

The burner(s) shall be in-shot type, directly firing each heat exchanger tube individually and is designed for good lighting characteristics without noise of extinction for both natural and propane gas.

The ignition controller(s) shall be 100% shut-off with continuous retry.

The gas pressure shall be between 6-7" W.C for natural gas.



The solid state ignition system shall directly light the gas by means of a direct spark igniter each time the system is energized.

The unit gas controls shall be provided with the following:

Single-stage gas controls with a single-stage combination gas control, an ignition control. The unit fires at 100% full fire based on a call for heat from a room thermostat.

An automatic reset high limit switch mounted in the air stream to shut off the gas supply in the event of overheating.

A time delay relay that delays the start of the air mover to allow the heat exchanger a warm-up period after a call for heat. The time delay relay shall also continue the air mover operation after the thermostat has been satisfied to remove any residual heat in the heat exchanger.

The unit must be field adjusted for 0-2000 feet elevation above sea level. See units installation manual for instruction for altitude adjustments.

## **Electrical**

All electrical components shall carry UL, ETL, or CSA certification.

A low voltage terminal board shall be provided for direct wiring connection to an external thermostat.

A unit-mounted on/off toggle switch shall be provided. Toggle switch rating is 15 amperes at 125 volts or up to  $\frac{3}{4}$  HP at 125 volts.

A single 115V to 24V step down transformer shall be provided for all unit controls.

## **Air Mover**

The motor horsepower shall be 1/6 H.P.

The motor wiring shall be in flexible metal BX conduit.

The motor shall be controlled by a time delay relay.

Propeller models shall meet the following requirements:

The motor type shall be Single-Speed, Totally Enclosed (TE).

The air mover motor shall be a 115V motor.

## **Mounting**

The unit shall be equipped with tapped holes to accept 3/8"-16 threaded rod for suspension.

Propeller Unit to have two point adjustable suspension points to allow for level hanging with a variety of accessories.

## **Accessories**

The following field installed accessory control devices shall be provided with the unit: