

ROBERTS GORDON®

BLACKHEAT™

Negative Pressure Heating

Unitary

**MODEL
CTHND**



**Multiburner
System**

Unitary and Custom Designed Multiburner Systems

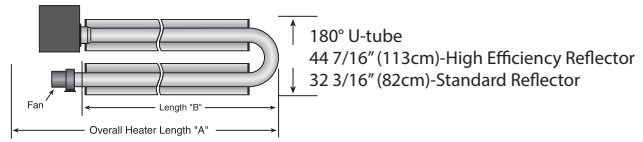
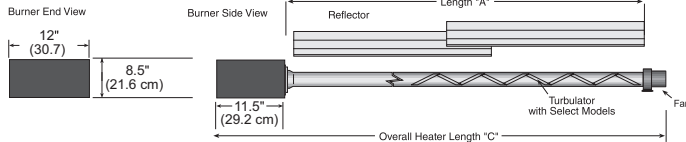
- Negative pressure design with uniform tube temperature that provides a more even heat distribution than positive pressure heaters
- Heats effectively at high mounting heights and in high heat loss environments
- Robust burner housing with durable components boosts performance and increases longevity
- Can operate as a standalone unitary heater or multiple heaters can be connected to a common manifold pipe to form a Multiburner system
- Multiburner system reduces building penetrations and installation cost as a result of multiple heaters connected to a single vacuum pump



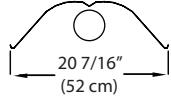
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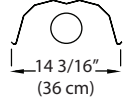
THE INDUSTRY LEADER
RADIANT
EFFICIENCY™



High Efficiency Reflector



Standard Reflector



Model	BLACKHEAT™ CTHND								
	CTHND-40	CTHND-60	CTHND-80	CTHND-100	CTHND-125	CTHND-150	CTHND-175	CTHND-200	
Unitary									
Minimum Length of Straight Tube*	[ft] A	10	20	20	30	40	40	50	50
Minimum Length of U-Tube*	[ft, in] B	11,6	11,6	11,6	16,6	21,6	21,6	26,6	26,6
Overall Minimum Length of Straight Tube*	[ft, in] C	12,3	22,3	22,3	32,3	42,3	42,3	52,5	52,5
Overall Minimum Length of U-Tube*	[ft, in] D	13,2	13,2	13,2	18,2	23,2	23,2	28,2	28,2
Multiburner									
Radiant Tube Length	[ft]	20	30	30	40	50	50	60	60
Manifold Length per Burner*	[ft]	See Installation, Operation and Service Manual.							
Distance from Burner to Elbow or U-Tube	[ft]	10	10	10	15	15	20	20	20
Elbows Allowed per Burner		2	2	2	2	2	2	2	2
Number of Burners per EP-100 Pump**	max.	4	4	4	4	4	3	2	2
Number of Burners per EP-200 Pump**	max.	6	6	6	6	6	5	4	4
Number of Burners per EP-300 Pump**	max.	16	16	14	12	12	10	8	8

*For additional lengths, please see the current Installation, Operation and Service Manual.

** For altitudes of up to 2000' (610 m); consult Installation, Operation and Service Manual for higher altitudes.

Input (Btu/h) x (1000)		40	60	80	100	125	150	175	200
Inlet Pressure	[in wc] NG min.	4.6	4.6	4.6	4.6	4.6	4.6	5	5
	LPG Propane min.	11	11	11	11	11	11	11	11
	NG & LPG Propane max.	14	14	14	14	14	14	14	14
Gas Connection	NPT	½"	½"	½"	½"	½"	¾"	¾"	¾"
Weights									
Hot Rolled or Aluminized Tube and Accessory Packages [ft]		10	20	30	40	50	60	70	80
High Efficiency Aluminum Reflector	[lb]	54	89	124	167	213	248	291	334
Standard Aluminum Reflector	[lb]	52	86	120	161	206	240	281	322
Burner	[lb]	20							
U-tube Packages									
Aluminized U-tube for High Efficiency Reflector	[lb]	23							
Aluminized U-tube for Standard Reflector	[lb]	19							
Fuel		NG or LPG Propane							
Electrical Supply		Unitary Heater - 120V, 60 Hz, 1 A Multiburner Heater - 120V, 60 Hz, 1 A							
Heat Exchanger Tubing		10 ft Sections, 4" dia, 16 Gauge, First 10 ft ALUMI-THERM® Steel Tubing [Remaining Hot Rolled, Heat Treated Aluminized Steel Tubing]							
Exhaust Flue	dia	Unitary Heater - 4", Multiburner Pump - 4", 5" or 6", See Installation, Operation and Service Manual for details.							
Reflector and End Caps		.024 Aluminum [Optional - .024 Stainless Steel Type 304]							
Control System		Fully Automatic, Three-Try, Direct Spark, 100% Shut-Off, Electronic Ignition Control							
Approved As		Unitary - Indoor (Vented or Unvented); Multiburner System - Indoor (Vented)							
Certification		ANSI Z83.20/CSA 2.34, 2.17							
Warranty		Three-Year Limited (Refer to Installation, Operation and Service Manual for Details)							

Clearances to Combustibles ***[in]

Model	45°	CTHND-40		CTHND-60		CTHND-80		CTHND-100		CTHND-125		CTHND-150		CTHND-175		CTHND-200	
		Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°
	A	5	8	5	8	5	9	5	10	5	10	5	10	8	10	8	12
	B	20	4	27	4	30	4	32	4	35	4	39	4	44	4	52	10
	C	41	35	51	45	58	54	60	57	65	63	71	66	74	69	96	85
	D	20	43	27	45	30	55	32	56	35	58	39	61	44	68	52	79

***Clearances B, C and D can be reduced by 50% for locations 25 ft (7 m) or more downstream of the burner. For other mounting options and associated clearances, complete installation, operation and service criteria, please see the current issue of the Installation, Operation and Service Manual.

This product is not for residential use. This document is intended to assist licensed professionals in the exercise of their professional judgment.

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