# ROBERTS/GORDON® Negative Pressure Heating



10



MODEL

CTHN

#### 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





### 800.828.7450 www.robertsgordon.com

## THE INDUSTRY LEADER RADIANT E F F I C I E N C Y<sup>\*\*</sup>

<b>ROBERTS</b>	GORD	<b>ON</b> ®	THE E			סווחספ		ന്നം				
·	Length "A"			AGLUS		LODOC		CUNA				
		_			180° U-tube							
13.5" (34 cm) →		- 1				3cm)-High Effic	iency Reflector					
9.5" (24 cm)	$\sim \sim \checkmark \leq$	$\sim$				32 3/16" (82	cm)-Standard R	eflector				
<u>↓</u>		Turbulator with Select Models	Fan Fan		_ength "B"	<u> </u>						
(44 cm)				Overall Heater I	Length "A"							
High Efficiency Reflector	Standard Reflecto	r										
20 7/16"	<u> </u>			v	ANTAGE® CTL	IN						
Model (52 cm)	(36 cm)	CTHN-40	CTHN-60	VANTAGE <sup>®</sup> CTHN CTHN-80 CTHN-100 CTHN-125 CTHN-150 CTHN-175								
Unitary	(50 cm)	C1111 40	crint ou	C1111 00	crint roo	CIIII 125	crine 150	cinit i/ j	CTHN-200			
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 Insta	llation, Operatio	on 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 curre	nt Installation, Operation	n and Service M	anual.									
** For altitudes of up to 2000' (610 m); consu	It Installation, Operation	and Service M	anual for highe	r 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			
N	IG & LPG Propane max.	14	14	14	14	14	14	14	14			
Gas Connection	NPT	1⁄2"	1⁄2"	1/2"	1/2"	1/2"	3⁄4"	3⁄4"	3⁄4"			
Weights												
Hot Rolled or Aluminized Tube and Acc	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	124	167	215	240	291	322			
			80	120	101	200	240	201	522			
Burner	[lb]	20										
U-tube Packages												
Aluminized U-tube for High Efficiency Ref	lector [lb]	23										
Aluminized U-tube for Standard Reflector		19										
Fuel	נטון		G Propane									
Electrical Supply			Heater - 120 V, 6	0 Hz 1 A								
			ner Heater - 12									
Heat Exchanger Tubing				-	ft ALUMI-THER	-						
		-		uminized Steel	-							
Exhaust Flue									details.			
Reflector and End Caps		.024 Aluminum [Optional024 Stainless Steel Type 304] Fully Automatic, Three-Try, Direct Spark, 100% Shut-Off, Electronic Ignition Control										
Control System				<i>i</i>								
Approved As	Unitary - Indoor (Vented or Unvented); Multiburner System - Indoor (Vented)											
Certification			3.20/CSA 2.34, 2		-							
Warranty		Three-Ye	ar Limited (Refe	er to Installation	n, Operation and	Service Manua	l for Details)	-				
Clearances to Combustibles ***[i	nl											

#### Clearances to Combustibles \*\*\*[in]

Model			CTHN-40		CTHN-60		CTHN-80		CTHN-100		CTHN-125		CTHN-150		CTHN-175		CTHN-200	
Horizontal	45°		Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°	Horiz.	45°
1	<b>†</b>	А	5	8	5	8	5	9	5	10	5	10	5	10	8	10	8	12
		В	20	4	27	4	30	4	32	4	35	4	39	4	44	4	52	10
		С	41	35	51	45	58	54	60	57	65	63	71	66	74	69	96	85
Ļ		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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