

ROBERTS GORDON®

Blackheat™ NP 1

Unitary

*Multiburner
System*

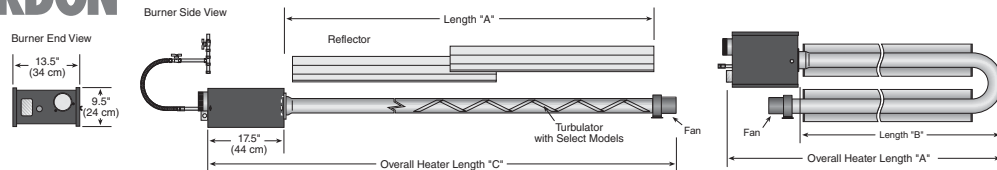
Reduce Energy Use
By Up To
50%

Negative Pressure Unitary Heaters and Multiburner Infrared Heating 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



BLACKHEAT™ NP 1

Model		CTHN-40	CTHN-60	CTHN-80	CTHN-100	CTHN-125	CTHN-150	CTHN-175	CTHN-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										
Overall Length of Tube and Accessory Packages		[ft]	10	20	30	40	50	60	70	80
Hot Rolled or Aluminized Tube with Aluminum Reflector		[lb]	52	86	120	161	206	240	281	322
Aluminized Tube with Stainless Steel Reflector		[lb]	66	113	152	208	265	304	360	416
Burner		[lb]	35							
Aluminized U-Tube with Aluminum End Caps		[lb]	19							
Aluminized U-Tube with Stainless Steel End Caps		[lb]	20							
Fuel		NG or LPG Propane								
Electrical Supply		Unitary Heater - 120 V, 60 Hz, 1 A for 40 - 150; 120 V, 60 Hz, 2 A for 175 & 200 Multiburner Heater - 120 V, 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 or Double Porcelain Coated 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		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°
	A	5 8	5 8	5 9	5 10	5 10	5 10	8 10	8 10
	B	20 4	27 4	30 4	32 4	35 4	39 4	44 4	47 4
	C	41 35	51 45	58 54	60 57	65 63	71 66	74 69	76 73
	D	20 43	27 45	30 55	32 56	35 58	39 61	44 68	47 71

***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.

Installation Code and Annual Inspections:

All installation and service of ROBERTS GORDON® equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Roberts-Gordon LLC and conform to all requirements set forth in the ROBERTS GORDON® manuals and all applicable governmental authorities pertaining to the installation, service, operation and labeling of the equipment. To help facilitate optimum performance and safety, Roberts-Gordon LLC recommends that a qualified contractor conduct, at a minimum, annual inspections of your ROBERTS GORDON® equipment and perform service where necessary, using only replacement parts sold and supplied by Roberts-Gordon LLC.

Further Information: Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through ROBERTS GORDON® representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

These products are not for residential use.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

Roberts-Gordon LLC
 1250 William Street
 P.O. Box 44
 Buffalo, NY 14240-0044 USA
 Telephone: +1.716.852.4400
 Fax: +1.716.852.0854
 Toll Free: 800.828.7450
www.robertsgordon.com

© 2015 Roberts-Gordon LLC All rights reserved. No part of this work covered by the copyrights herein may be reproduced or copied in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems – without written permission of Roberts-Gordon LLC.