

## GCHI & GCHIB

Steam, Air & Gas  
Applications to 750°F<sup>1</sup>

- 3 - 18" ANSI Blind Flange Design
- 3 - 18" Carbon Steel Pipe Body, 150 Lb Construction (750°F Max. Vessel and 1600°F Max. Sheath Temp.)<sup>1</sup> For Stainless Steel Pipe Body Construction, Refer to GCHIS Series Circulation Heaters.
- 3 - 350 kW
- 240 and 480V, 1 & 3 Phase
- General Purpose, Moisture Resistant/Explosion Resistant, Explosion Resistant or Moisture Resistant Terminal Enclosure
- 0.475" Dia. INCOLOY® Sheath Elements (15 - 23 W/in<sup>2</sup>)
- 3 and 5" with Side Mounted Thermostat (200 - 550°F), 8, 10, 14 and 16" without Thermostat
- CSA and Other Third Party Approval, Listing or Certification Available



### Applications

Steam, Air and Gas — Higher kW ratings for larger industrial and commercial gas heating applications.

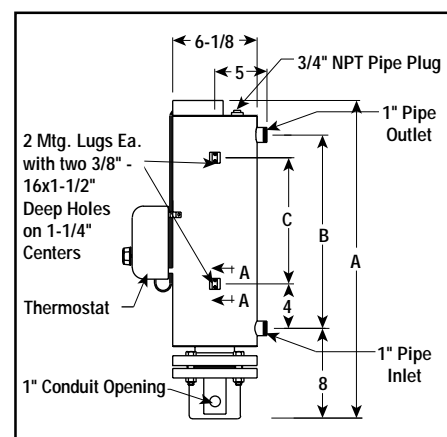
### Features

Terminal Enclosure — E1 General Purpose is standard. E2 Moisture Resistant/Explosion Resistant, E3 Explosion Resistant or E4 Moisture Resistant available.

Elements — 0.475" diameter INCOLOY® sheath elements.

Flange — 3 - 10" ANSI B-16.5 flange with 1/2" thermowell for thermostat bulb and a 1/8" NPT threaded opening for a thermocouple or RTD.

### Dimensions (Inches) GCHI-03



Vessel — Pipe body and nozzles are ASTM A53B carbon steel pipe. The end disk is ASTM A516 Grade 70 carbon steel plate. Provided with thermal insulation and painted sheet metal jacket.

Baffle Assembly — Internal baffle assemblies are provided on GCHIB-18 models. Baffles reduce the internal cross sectional area thereby increasing the velocity of the gas. Increasing the gas velocity reduces the operating temperature of the elements and the shell of the vessel.

Wiring — Convenient field wiring terminals are provided for easy installation.

Controls — Series 03 and 06 stock and assembly stock heaters come equipped with side mounted thermostat. Series 18, 27, 45 and 108 are furnished without thermostat.

### Specifications and Ordering Information

kW	Volts	Ckt & Phase	Dimensions (In.)			Model	Stock	PCN	Wt. (Lbs.)
			A	B	C				
Series 03 — 3 inch, 150 lb carbon steel vessel — 3 INCOLOY® elements¹ (23 W/in²) with thermostat									
3	240	1-1	32-15/16	22-1/2	16-1/2	GCHI-03-003P-E1	AS	013240	62
3	240	1-3	32-15/16	22-1/2	16-1/2	<b>GCHI-03-003P-E1</b>	<b>S</b>	<b>103915</b>	62
3	480	1-1	32-15/16	22-1/2	16-1/2	GCHI-03-003P-E1	AS	013258	62
3	480	1-3	32-15/16	22-1/2	16-1/2	<b>GCHI-03-003P-E1</b>	<b>S</b>	<b>103958</b>	62
4.5	240	1-1	32-15/16	22-1/2	16-1/2	GCHI-03-04P5-E1	AS	013266	72
4.5	240	1-3	32-15/16	22-1/2	16-1/2	GCHI-03-04P5-E1	AS	104070	72
4.5	480	1-1	32-15/16	22-1/2	16-1/2	GCHI-03-04P5-E1	AS	013274	72
4.5	480	1-3	32-15/16	22-1/2	16-1/2	<b>GCHI-03-04P5-E1</b>	<b>S</b>	<b>104117</b>	72
6	240	1-1	42-15/16	32-1/2	26-1/2	GCHI-03-006P-E1	AS	013282	94
6	240	1-3	42-15/16	32-1/2	26-1/2	<b>GCHI-03-006P-E1</b>	<b>S</b>	<b>104230</b>	94
6	480	1-1	42-15/16	32-1/2	26-1/2	GCHI-03-006P-E1	AS	013290	94
6	480	1-3	42-15/16	32-1/2	26-1/2	<b>GCHI-03-006P-E1</b>	<b>S</b>	<b>104272</b>	94
<b>Stock Status:</b> S = stock AS = assembly stock NS = non-stock <b>To Order</b> —Specify model, volts, phase, kW, PCN and quantity.									
1. Outlet gas temperature must be kept below both maximum sheath and vessel temperature or element and heater damage may occur. Contact your Local Chromalox Sales office for application assistance.									

## GCHI & GCHIB

Steam, Air & Gas

Applications to 750°F<sup>1</sup> (cont'd.)

### Specifications and Ordering Information

kW	Volts	Ckt & Phase	Dimensions (In.)			Model	Stock	PCN	Wt. (Lbs.)
			A	B	C				
Series 06 — 5 inch, 150 lb carbon steel vessel — 6 INCOLOY® elements¹ (23 W/in²) with thermostat									
9	240	1-1	41-3/4	30	11-3/8	GCHI-06-009P-E1	AS	013303	135
9	240	1-3	41-3/4	30	11-3/8	GCHI-06-009P-E1	AS	104715	135
9	480	1-1	41-3/4	30	11-3/8	GCHI-06-009P-E1	AS	013311	135
9	480	1-3	41-3/4	30	11-3/8	GCHI-06-009P-E1	AS	013320	135
12	240	1-1	48-3/4	37	14-7/8	GCHI-06-012P-E1	AS	013338	164
12	240	1-3	48-3/4	37	14-7/8	<b>GCHI-06-012P-E1</b>	<b>S</b>	<b>104870</b>	164
12	480	1-1	48-3/4	37	14-7/8	GCHI-06-012P-E1	AS	013346	164
12	480	1-3	48-3/4	37	14-7/8	<b>GCHI-06-012P-E1</b>	<b>S</b>	<b>104598</b>	164
20	240	1-1	60-1/4	48-1/2	20-5/8	GCHI-06-020P-E1	AS	013354	195
20	240	1-3	60-1/4	48-1/2	20-5/8	GCHI-06-020P-E1	AS	013362	195
20	480	1-1	60-1/4	48-1/2	20-5/8	GCHI-06-020P-E1	AS	013370	195
20	480	1-3	60-1/4	48-1/2	20-5/8	<b>GCHI-06-020P-E1</b>	<b>S</b>	<b>105478</b>	195
25	240	1-1	73-5/8	61-7/8	27-5/16	GCHI-06-025P-E1	AS	013389	212
25	480	1-3	73-5/8	61-7/8	27-5/16	GCHI-06-025P-E1	AS	013397	212
25	240	1-1	73-5/8	61-7/8	27-5/16	GCHI-06-025P-E1	AS	013400	212
25	480	1-3	73-5/8	61-7/8	27-5/16	GCHI-06-025P-E1	AS	013418	212
30	240	1-3	86-5/8	74-7/8	33-7/8	GCHI-06-030P-E1	AS	013434	240
30	480	1-3	86-5/8	74-7/8	33-7/8	GCHI-06-030P-E1	AS	013450	240
Series 18 — 8 inch, 150 lb carbon steel vessel — 18 baffled INCOLOY® elements¹ (20 W/in²)									
30	240	3-3	54-5/16	32-11/16	29-3/16	GCHIB-18-030P-E1	NS	080768	350
30	480	3-3	54-5/16	32-11/16	29-3/16	GCHIB-18-030P-E1	NS	080776	350
40	240	3-3	61-5/16	39-11/16	36-3/16	GCHIB-18-040P-E1	NS	080784	420
40	480	3-3	61-5/16	39-11/16	36-3/16	GCHIB-18-040P-E1	NS	080792	420
50	240	3-3	68-15/16	47-5/16	43-13/16	GCHIB-18-050P-E1	NS	080805	480
50	480	3-3	68-15/16	47-5/16	43-13/16	GCHIB-18-050P-E1	NS	080813	480
Series 27 — 10 inch, 150 lb carbon steel vessel — 27 INCOLOY® elements¹ (15 W/in²)									
50	240	3-3	68-9/16	43	39-1/2	GCHI-27-050P-E1	NS	020212	400
50	480	3-3	68-9/16	43	39-1/2	GCHI-27-050P-E1	NS	020220	400
60	240	3-3	75-9/16	50	46-1/2	GCHI-27-060P-E1	NS	020239	440
60	480	3-3	75-9/16	50	46-1/2	GCHI-27-060P-E1	NS	020247	440
70	240	3-3	81-9/16	56	52-1/2	GCHI-27-070P-E1	NS	020255	480
70	480	3-3	81-9/16	56	52-1/2	GCHI-27-070P-E1	NS	020263	480
80	240	3-3	91-9/16	66	62-1/2	GCHI-27-080P-E1	NS	020271	520
80	480	3-3	91-9/16	66	62-1/2	GCHI-27-080P-E1	NS	020280	520
90	240	3-3	100-9/16	75	71-1/2	GCHI-27-090P-E1	NS	020298	560
90	480	3-3	100-9/16	75	71-1/2	GCHI-27-090P-E1	NS	020300	560

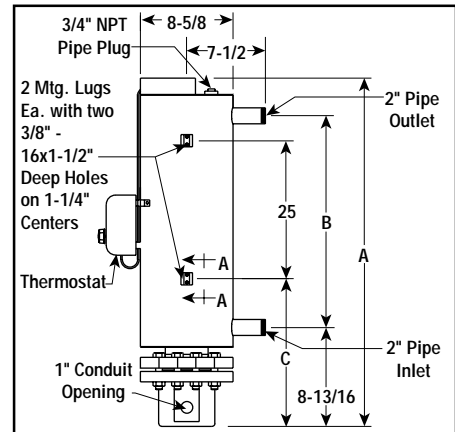
**Stock Status:** S = stock AS = assembly stock NS = non-stock  
**To Order—**Specify model, volts, phase, kW, PCN and quantity.

- Outlet gas temperature must be kept below both maximum sheath and vessel temperature or element and heater damage may occur. Contact your Local Chromalox Sales office for application assistance.

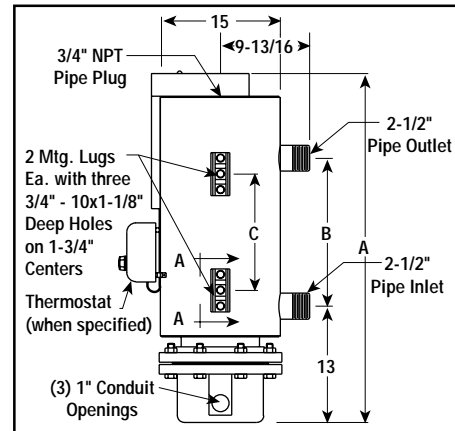
**Other Note —** Refer to the Controls section for side mounted controls or control panels.

### Dimensions (Inches)

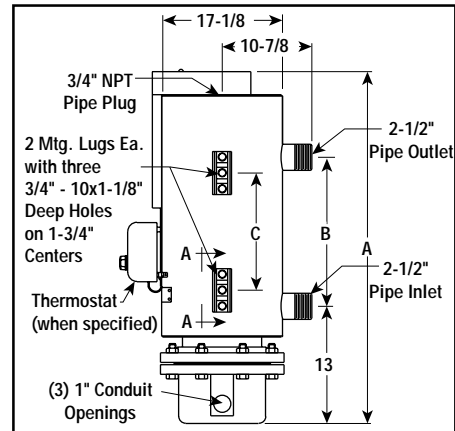
#### GCHI-06



#### GCHIB-18



#### GCHI-27



# GCHI & GCHIB

Steam, Air & Gas

Applications to 750°F<sup>1</sup> (cont'd.)

## Specifications and Ordering Information

kW	Volts	Ckt & Phase	Dimensions (In.)					Model	Stock	PCN	Wt. (Lbs.)
			A	B	C	D	E				
Series 45 — 14 inch, 150 lb carbon steel vessel — 45 INCOLOY® elements <sup>1</sup> (15 W/in <sup>2</sup> )											
75	480	3-3	76	57-3/16	66-11/16	15	11-1/2	GCHI-45-075P-E1	NS	086238	835
90	480	3-3	76	57-3/16	66-11/16	15	11-1/2	GCHI-45-090P-E1	NS	086254	925
125	480	3-3	91	72-3/16	81-11/16	15	11-1/2	GCHI-45-125P-E1	NS	086270	1,025
150	480	3-3	106	87-3/16	96-11/16	15	11-1/2	GCHI-45-150P-E1	NS	086297	1,125
175	480	3-3	121	102-3/16	111-11/16	15	11-1/2	GCHI-45-175P-E1	NS	086318	1,225
Series 72 — 16 inch, 150 lb carbon steel vessel — 72 INCOLOY® elements <sup>1</sup> (15 W/in <sup>2</sup> )											
200	480	3-3	93	74-5/8	84-1/8	16	12-3/4	GCHI-72-200P-E1	NS	086393	1,265
225	480	3-3	101	82-5/8	92-1/8	16	12-3/4	GCHI-72-225P-E1	NS	086369	1,310
250	480	3-3	109	90-5/8	100-1/8	16	12-3/4	GCHI-72-250P-E1	NS	086334	1,355
Series 108 — 18 inch, 150 lb carbon steel vessel — 108 INCOLOY® elements <sup>1</sup> (15 W/in <sup>2</sup> )											
300	480	6-3	94	75-1/2	85	17	13-1/2	GCHI-108-300P-E1	NS	086422	1,400
325	480	6-3	100	81-1/2	91	17	13-1/2	GCHI-108-325P-E1	NS	086457	1,450
350	480	6-3	106	87-1/2	97	17	13-1/2	GCHI-108-350P-E1	NS	086481	1,500

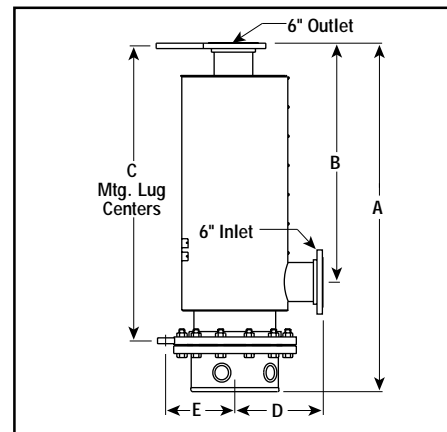
**Stock Status:** S = stock AS = assembly stock NS = non-stock  
**To Order**—Specify model, volts, phase, kW, PCN and quantity.

1. Recommended temperature limits for all GCH heaters with carbon steel vessels and INCOLOY® elements are 1600°F maximum for the sheath temperature and 750°F maximum for the vessel temperature at 5 psi pressure maximum. Exceeding these recommendations will void the factory warranty. Outlet gas temperatures must be kept below both the maximum sheath and vessel temperature or element and vessel damage may occur. Contact your Local Chromalox Sales office for assistance in determining the gas flow characteristics and proper heater selection. Heaters supplied without controls.

**Other Note** — Refer to the Controls section for side mounted controls or control panels.

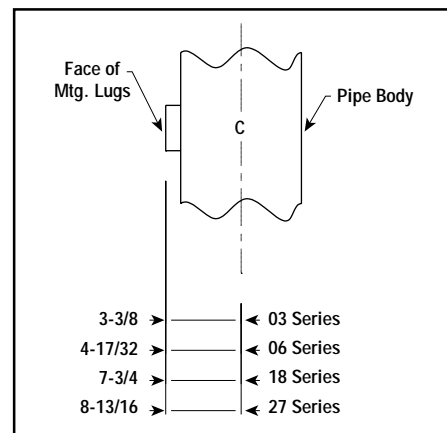
## Dimensions (Inches)

### GCHI-45, 72, 108



Steam, Air and Gas

### GCHI-AA



## Ordering Information

To Order —  
 Complete the  
 Model Number  
 using the Matrix  
 provided.

Model	Steam, Air and Gas to 750°F <sup>1</sup>			
GCHI	Gas Circulation Heater — INCOLOY® Elements — Steel Vessel			
B	Internal Baffles			
Code	Number of Elements			
03	Three	45	Forty Five	
06	Six	72	Seventy Two	
18	Eighteen	108	One Hundred Eight	
27	Twenty Seven			
Code	kW			
003P	3	040P	40	150P 150
04P5	4.5	050P	50	200P 200
006P	6	060P	60	225P 225
009P	9	070P	70	250P 250
012P	12	075P	75	300P 300
020P	20	080P	80	325P 325
025P	25	090P	90	350P 350
030P	30	125P	125	
Code	Terminal Enclosure			
E1	General Purpose			
E2	Moisture Resistant/Explosion Resistant			
E3	Explosion Resistant			
E4	Moisture Resistant			
GCHI	45	072P	E1	Typical Model Number