

GAUMER PROCESS

HEATERS
SYSTEMS
CONTROLS

APPLICATIONS

90, 60, and 45 Watts Per Square Inch

- Industrial water heating - many aqueous solutions which are compatible with steel and Incoloy.

23 and 20 Watts Per Square Inch

- For heat transfer oil, cleaners, high temperature air and gas heating.

15 and 12 Watts Per Square Inch

- For lubricating oils, medium viscosity oils, high temperature air and gas heating.

8 and 6 Watts Per Square Inch

- For #5 and #6 fuel oil heating, viscous materials, raw crude oil, residual oils, high temperature air and gas heating.

4 and 2 Watts Per Square Inch

- For asphalt and other hard-to-heat materials, extra high temperature air and gas.

SPECIAL FEATURES

- Explosion Resistant Terminal Enclosure
- Moisture Resistant Terminal Enclosure
- Sheath Sensing Type K (J) Thermocouple attached to one element for overheat protection.
- Offset (Spaced Away) Terminal Housing
- Space Heater Mounted in Term. Encl.
- 2" Calcium Silicate Insulation with Alum. Jacke
- 2" Calcium Silicate Insulation with SS Jacket
- Insulation Jacket - Weatherproof Const.
- Custom Insulation Jacket
- 300#, 600#, 900#, etc. Construction
- Stainless Steel Construction - Type 304, 316
- ASME Coded and Stamped Chamber
- Thermowell/TC (Type J/K) mtd. in Outlet

OTHER CAPABILITIES

- Double Ended PBodies to 38 ft. Available
- Multiple Chamber Units Available
- Designs Available to 3000 psig and 1200°F.
- Special Material Assemblies are Available
- Special Coatings and Finishes are Available

7/3/2002

Circulation Heaters - Type IC



STANDARD FEATURES

Pipebody Chamber

- All Welded Construction
- 100% Hydrostatic Tested
- Sizes to 24 in. Diam. Available as Standard
- Over 200 Nozzle Arrangements are Standard
- Both Vertical and Horizontal Models Standar
- Either Mtg Brackets or Saddles are Standard
- Drain Plugs Where Applicable are Standard
- Large Selection of Standard Inlet and Outlet Sizes
- Chamber Connection Type and Size other than that detailed on Catalog Page

Heating Elements

- Incoloy 800 Sheath Material, Sealed Terminal
- Heavy Wall (.035 in.), Large diameter (.475 in.

Spacers

- Rugged Design, High Temp Alloy Material
- "Evenflow" Configuration Standard

Construction

- Welded Heating Elements
- Welded Terminal Housings and Spacers

Installation

- Flying Leadwires Provided
- Only Standard Materials Needed in Field

Service

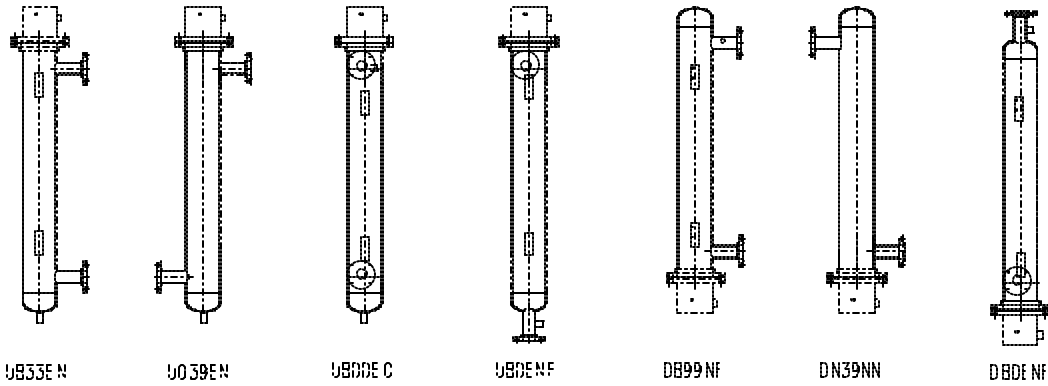
- Wiring Modifiable in Field
- Assembly Repairable at Factory

Circulation Heaters

Type IC

Gaumer Drawing No. IC-100
(Arrangement Option Detail)

HEATER COMPONENT LOCATION CODE



UB33EN

U039EN

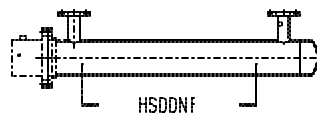
UB00EC

UB00EN

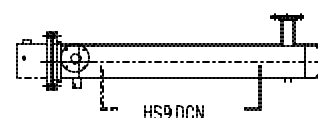
DB99NF

DN39NN

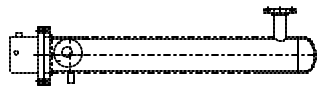
DB00NF



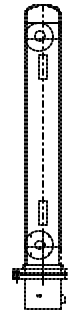
HSDDNF



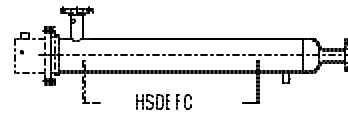
HS9DCN



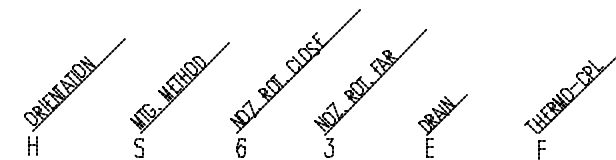
HN3DCN



DBDDNN



HSDFC



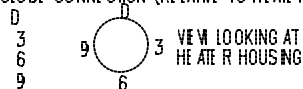
1) HEATER ORIENTATION

- H---HORIZONTAL
- U---UP (RELATIVE TO HEATER FLANGE)
- D---DOWN (RELATIVE TO HEATER FLANGE)

2) MOUNTING METHOD (ALWAYS AT THE 6 POSITION)

- S---SADDLES
- B---MOUNTING BLOCKS
- N---NONE

3) CLOSE CONNECTION (RELATIVE TO HEATER FLANGE)



4) FAR CONNECTION (SAME AS CLOSE CONNECTION)

- D
- 3
- 6
- 9
- E---END

5) DRAIN

- C---CLOSE
- F---FAR
- E---END
- N---NONE

6) THE THERMOCOUPLE

- C---CLOSE
- F---FAR
- N---NONE

7/3/2002

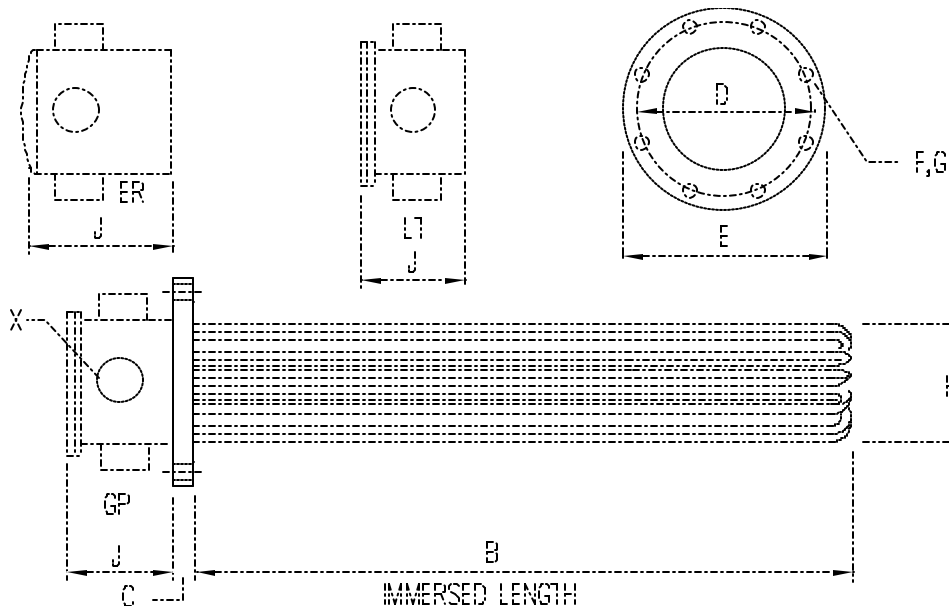
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Circulation Heaters

Type IC

Gaumer Drawing No. IF-200 (Dimension Flange Heater Detail)

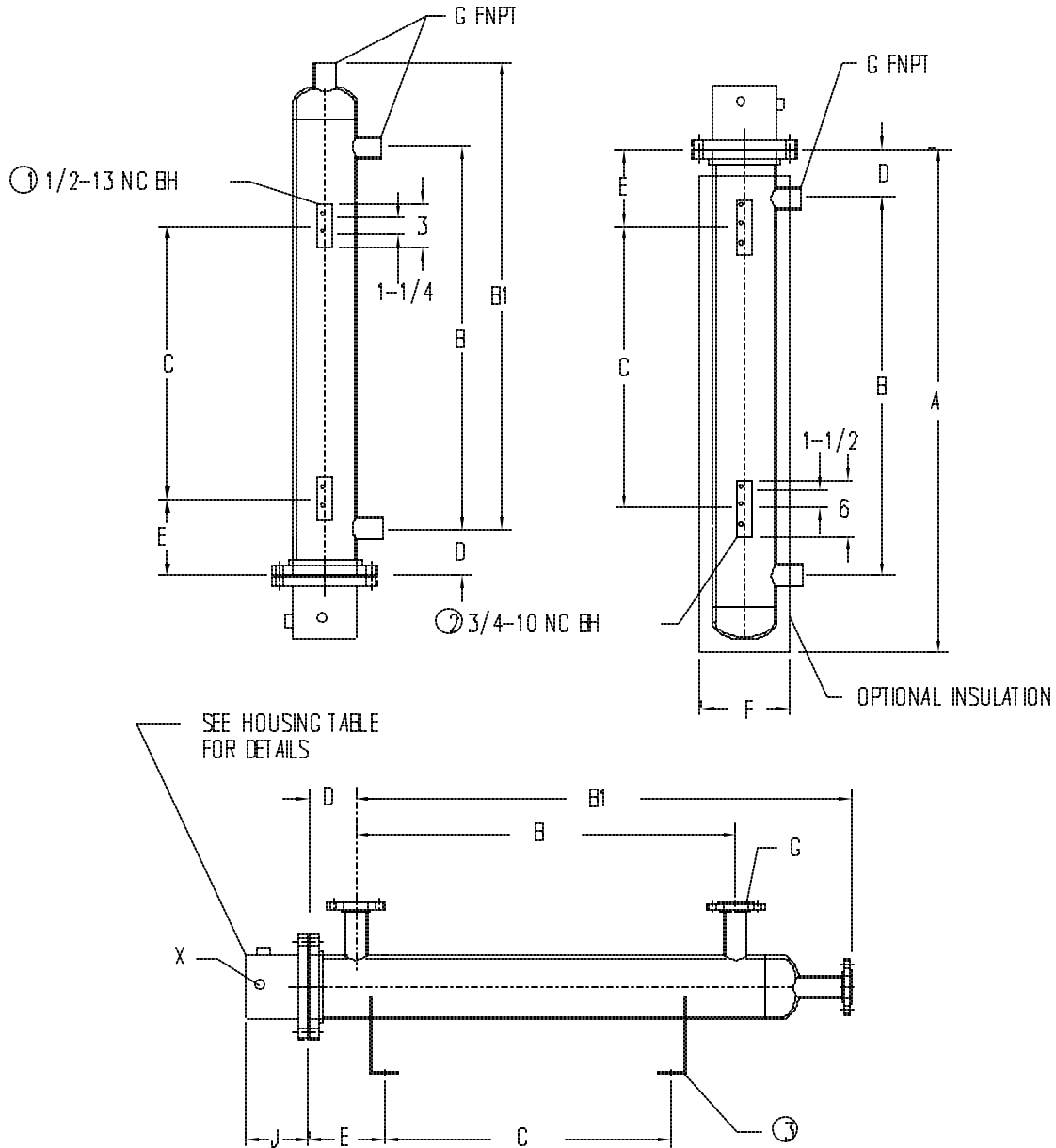
Flange Size	Pressur Class	Flange Dimensions (inches)			Hole Size	No. of Holes	Min.Hole Diam.	Housing Height (inches)			X - No and Size Conduit Connection		
		C Thick	D Diam:	E Diam:				F	G	H	J GP:	J ER:	J LT:
2-1/2	150	7/8	5-1/2	7	3/4	4	2-1/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
2-1/2	300	1	5-7/8	7-1/2	7/8	8	2-1/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
3	150	0-15/16	6	7-1/2	3/4	4	2-3/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
3	300	1-1/8	6-5/8	8-1/4	7/8	8	2-3/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
4	150	0-15/16	7-1/2	9	3/4	8	3-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
4	300	1-1/4	7-7/8	10	7/8	8	3-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
5	150	0-15/16	8-1/2	10	7/8	8	4-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
5	300	1-3/8	9-1/4	11	7/8	8	4-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
6	150	1	9-1/2	11	7/8	8	5-3/4	5-1/2	8	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
6	300	1-7/16	10-5/8	12-1/2	7/8	12	5-3/4	5-1/2	8	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
8	150	1-1/8	11-3/4	13-1/2	7/8	8	7-13/16	5-1/2	9	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
8	300	1-5/8	13	15	1	12	7-13/16	5-1/2	9	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
10	150	1-3/16	14-1/4	16	1	12	9-5/8	7	11	7	4@2	4@2	4@2
10	300	1-7/8	15-1/4	17-1/2	1-1/8	16	9-5/8	7	11	7	4@2	4@2	4@2
12	150	1-1/4	17	19	1	12	11-5/8	7	11	7	4@2	4@2	4@2
12	300	2	17-3/4	20-1/2	1-1/4	16	11-5/8	7	11	7	4@2	4@2	4@2
14	150	1-3/8	18-3/4	21	1-1/8	12	12-1/2	7	11	7	4@2	4@2	4@2
14	300	2-1/8	20-1/4	23	1-1/4	20	12-1/2	7	11	7	4@2	4@2	4@2
16	150	1-7/16	21-1/4	23-1/2	1-1/8	16	14-1/2	9	13	9	4@2	4@2	4@2
16	300	2-1/4	22-1/2	25-1/2	1-3/8	20	14-1/2	9	13	9	4@2	4@2	4@2
18	150	1-9/16	22-3/4	25	1-1/4	16	16-3/8	9	13	9	4@2	4@2	4@2
18	300	2-3/8	24-3/4	28	1-3/8	24	16-3/8	9	13	9	4@2	4@2	4@2
20	150	1-11/16	25	27-1/2	1-1/4	20	18-5/16	9	13	9	4@2	4@2	4@2
20	300	2-1/2	27	30-1/2	1-3/8	24	18-5/16	9	13	9	4@2	4@2	4@2
24	150	1-7/8	29-1/2	32	1-3/8	20	22-1/8	11	15	11	6@2	6@2	6@2
24	300	2-3/4	32	36	1-5/8	24	22-1/8	11	15	11	6@2	6@2	6@2



Circulation Heaters

Type IC

Gaumer Drawing No. IC-300
(Dimension Option Detail)



- ① FOR SIZES 3" THRU 6"
- ② FOR SIZES 8" THRU 14"
- ③ SADDLES OPTIONAL

Circulation Heaters

Type IC

Watt Density: 60

Diameter (in.): 2.5

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 3 E = N/A		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C2F3N18B2	8	240	23	N/A	N/A	5-1/2	19	1 FNPT	21	2 FNPT	23	1 150#	24	2 150#		
C2F3N18B4	8	480	23	N/A	N/A	5-1/2	19	1 FNPT	21	2 FNPT	23	1 150#	24	2 150#		
C2F3N20B2	9	240	26	N/A	N/A	5-1/2	22	1 FNPT	24	2 FNPT	26	1 150#	27	2 150#		
C2F3N20B4	9	480	26	N/A	N/A	5-1/2	22	1 FNPT	24	2 FNPT	26	1 150#	27	2 150#		
C2F3N25B2	12	240	31	N/A	N/A	5-1/2	27	1 FNPT	29	2 FNPT	31	1 150#	32	2 150#		
C2F3N25B4	12	480	31	N/A	N/A	5-1/2	27	1 FNPT	29	2 FNPT	31	1 150#	32	2 150#		
C2F3N33B2	15	240	38	N/A	N/A	5-1/2	34	1 FNPT	36	2 FNPT	38	1 150#	39	2 150#		
C2F3N33B4	15	480	38	N/A	N/A	5-1/2	35	1 FNPT	37	2 FNPT	39	1 150#	40	2 150#		
C2F3N43B2	20	240	46	N/A	N/A	5-1/2	42	1 FNPT	44	2 FNPT	46	1 150#	47	2 150#		
C2F3N43B4	20	480	46	N/A	N/A	5-1/2	42	1 FNPT	44	2 FNPT	46	1 150#	47	2 150#		
C2F3N52B2	25	240	58	N/A	N/A	5-1/2	54	1 FNPT	56	2 FNPT	58	1 150#	59	2 150#		
C2F3N52B4	25	480	58	N/A	N/A	5-1/2	54	1 FNPT	56	2 FNPT	58	1 150#	59	2 150#		
C2F3N61B2	30	240	67	N/A	N/A	5-1/2	63	1 FNPT	65	2 FNPT	67	1 150#	67	2 150#		
C2F3N61B4	30	480	67	N/A	N/A	5-1/2	63	1 FNPT	65	2 FNPT	67	1 150#	68	2 150#		
C2F3N88B4	44	480	94	N/A	N/A	5-1/2	90	1 FNPT	92	2 FNPT	94	1 150#	95	2 150#		
C2F3N106B4	50	480	112	N/A	N/A	5-1/2	108	1 FNPT	110	2 FNPT	112	1 150#	113	2 150#		
C2F3N120B4	57	480	126	N/A	N/A	5-1/2	122	1 FNPT	124	2 FNPT	126	1 150#	127	2 150#		

Diameter (in.): 3

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4 E = 6		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C3F3N18B2	8	240	24-1/2	N/A	9	6-1/2	21	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C3F3N18B4	8	480	24-1/2	N/A	9	6-1/2	21	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C3F3N20B2	10	240	26-1/2	N/A	11	6-1/2	23	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C3F3N20B4	10	480	26-1/2	N/A	11	6-1/2	23	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C3F3N25B2	12	240	31-1/2	N/A	16	6-1/2	28	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C3F3N25B4	12	480	31-1/2	N/A	16	6-1/2	28	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C3F3N33B2	15	240	39-1/2	N/A	24	6-1/2	36	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C3F3N33B4	15	480	39-1/2	N/A	24	6-1/2	36	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C3F3N43B2	20	240	49-1/2	N/A	34	6-1/2	46	1 FNPT	48	2 FNPT	50	1 150#	51	3 150#		
C3F3N43B4	20	480	49-1/2	N/A	34	6-1/2	46	1 FNPT	48	2 FNPT	50	1 150#	51	3 150#		
C3F3N52B2	25	240	54-1/2	N/A	39	6-1/2	55	1 FNPT	57	2 FNPT	59	1 150#	60	3 150#		
C3F3N52B4	25	480	54-1/2	N/A	39	6-1/2	55	1 FNPT	57	2 FNPT	59	1 150#	60	3 150#		
C3F3N61B2	30	240	67-1/2	N/A	52	6-1/2	64	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C3F3N61B4	30	480	67-1/2	N/A	52	6-1/2	64	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C3F3N88B4	44	480	94-1/2	N/A	79	6-1/2	91	1 FNPT	93	2 FNPT	95	1 150#	96	3 150#		
C3F3N106B4	50	480	112-1/2	N/A	97	6-1/2	109	1 FNPT	111	2 FNPT	113	1 150#	114	3 150#		
C3F3N120B4	57	480	126-1/2	N/A	111	6-1/2	123	1 FNPT	125	2 FNPT	127	1 150#	128	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 4

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4 E = 6		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C4F6N18B2	16	240	25	14	9	7-1/2	22	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C4F6N18B4	16	480	25	14	9	7-1/2	22	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C4F6N20B2	17.4	240				7-1/2	24	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C4F6N20B4	20	480	27	16	11	7-1/2	24	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C4F6N25B2	24	240	32	21	16	7-1/2	29	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C4F6N25B4	24	480	32	21	16	7-1/2	29	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C4F6N33B2	30	240	40	29	24	7-1/2	37	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C4F6N33B4	30	480	40	29	24	7-1/2	37	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C4F6N43B2	40	240	50	39	34	7-1/2	47	1 FNPT	48	2 FNPT	50	1 150#	51	3 150#		
C4F6N43B4	40	480	50	39	34	7-1/2	47	1 FNPT	48	2 FNPT	50	1 150#	51	3 150#		
C4F6N52B2	50	240	55	48	39	7-1/2	56	1 FNPT	57	2 FNPT	59	1 150#	60	3 150#		
C4F6N52B4	50	480	55	48	39	7-1/2	56	1 FNPT	57	2 FNPT	59	1 150#	60	3 150#		
C4F6N61B2	60	240	68	57	52	7-1/2	65	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C4F6N61B4	60	480	68	57	52	7-1/2	65	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C4F6N88B4	89	480	95	84	79	7-1/2	93	1 FNPT	94	2 FNPT	96	1 150#	97	3 150#		
C4F6N106B4	100	480	113	102	97	7-1/2	110	1 FNPT	111	2 FNPT	113	1 150#	114	3 150#		
C4F6N120B4	114	480	127	116	111	7-1/2	124	1 FNPT	125	2 FNPT	127	1 150#	128	3 150#		

Diameter (in.): 5

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C5F6N18B2	16	240	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F6N18B4	16	480	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F6N20B2	20	240	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F6N20B4	20	480	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F6N25B2	24	240	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F6N25B4	24	480	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F6N33B2	30	240	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F6N33B4	30	480	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F6N43B2	40	240	50-3/4	38-1/2	31-3/4	8-1/2	48	2 FNPT	49	2-1/2 FNPT	50	2 150#	51	3 150#		
C5F6N43B4	40	480	50-3/4	38-1/2	31-3/4	8-1/2	48	2 FNPT	49	2-1/2 FNPT	50	2 150#	51	3 150#		
C5F6N52B2	50	240	55-3/4	47-1/2	36-3/4	8-1/2	57	2 FNPT	58	2-1/2 FNPT	59	2 150#	60	3 150#		
C5F6N52B4	50	480	55-3/4	47-1/2	36-3/4	8-1/2	57	2 FNPT	58	2-1/2 FNPT	59	2 150#	60	3 150#		
C5F6N61B2	60	240	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F6N61B4	60	480	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F6N88B4	89	480	95-3/4	88-1/2	71-3/4	8-1/2	98	2 FNPT	99	2-1/2 FNPT	100	2 150#	101	3 150#		
C5F6N106B4	100	240	113-3/4	101-1/2	94-3/4	8-1/2	111	2 FNPT	112	2-1/2 FNPT	113	2 150#	114	3 150#		
C5F6N120B4	114	480	127-3/4	115-1/2	108-3/4	8-1/2	125	2 FNPT	126	2-1/2 FNPT	127	2 150#	128	3 150#		
C5F9N18B2	24	240	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F9N18B4	24	480	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F9N20B2	30	240	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F9N20B4	30	480	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F9N25B2	36	240	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F9N25B4	36	480	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		

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Circulation Heaters

Type IC

Diameter (in.): 5

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C5F9N33B2	45	240	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F9N33B4	45	480	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F9N43B2	60	240	50-3/4	38-1/2	31-3/4	8-1/2	48	2 FNPT	49	2-1/2 FNPT	50	2 150#	51	3 150#		
C5F9N43B4	60	480	50-3/4	38-1/2	31-3/4	8-1/2	48	2 FNPT	49	2-1/2 FNPT	50	2 150#	51	3 150#		
C5F9N52B2	75	240	55-3/4	47-1/2	36-3/4	8-1/2	57	2 FNPT	58	2-1/2 FNPT	59	2 150#	60	3 150#		
C5F9N52B4	75	480	55-3/4	47-1/2	36-3/4	8-1/2	57	2 FNPT	58	2-1/2 FNPT	59	2 150#	60	3 150#		
C5F9N61B2	90	240	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F9N61B4	90	480	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F9N88B4	133	480	95-3/4	88-1/2	71-3/4	8-1/2	98	2 FNPT	99	2-1/2 FNPT	100	2 150#	101	3 150#		
C5F9N106B4	150	480	113-3/4	101-1/2	94-3/4	8-1/2	111	2 FNPT	112	2-1/2 FNPT	113	2 150#	114	3 150#		
C5F9N120B4	171	480	127-3/4	115-1/2	108-3/4	8-1/2	125	2 FNPT	126	2-1/2 FNPT	127	2 150#	128	3 150#		

Diameter (in.): 6

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C6F12N18B2	32	240	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F12N18B4	32	480	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F12N20B2	40	240	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F12N20B4	40	480	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F12N25B2	48	240	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F12N25B4	48	480	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F12N33B2	60	240	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F12N33B4	60	480	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F12N43B2	80	240	50-1/4	38-1/2	28-2/4	9-5/8	49	2 FNPT	49	2-1/2 FNPT	51	2 150#	52	3 150#		
C6F12N43B4	80	480	50-1/4	38-1/2	28-2/4	9-5/8	49	2 FNPT	49	2-1/2 FNPT	51	2 150#	52	3 150#		
C6F12N52B2	100	240	55-1/4	47-1/2	33-3/4	9-5/8	58	2 FNPT	58	2-1/2 FNPT	60	2 150#	61	3 150#		
C6F12N52B4	100	480	55-1/4	47-1/2	33-3/4	9-5/8	58	2 FNPT	58	2-1/2 FNPT	60	2 150#	61	3 150#		
C6F12N61B2	120	240	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F12N61B4	120	480	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F12N88B4	178	240	96-1/4	83-1/2	76-3/4	9-5/8	94	2 FNPT	94	2-1/2 FNPT	96	2 150#	97	3 150#		
C6F12N106B4	200	480	114-1/4	101-1/2	94-3/4	9-5/8	112	2 FNPT	112	2-1/2 FNPT	114	2 150#	115	3 150#		
C6F12N120B4	228	480	128-1/4	115-1/2	108-3/4	9-5/8	126	2 FNPT	126	2-1/2 FNPT	128	2 150#	129	3 150#		
C6F15N18B2	40	240	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F15N18B4	40	480	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F15N20B2	50	240	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F15N20B4	50	480	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F15N25B2	60	240	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F15N25B4	60	480	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F15N33B2	75	240	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F15N33B4	75	480	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F15N43B2	100	240	50-1/4	38-1/2	28-2/4	9-5/8	49	2 FNPT	49	2-1/2 FNPT	51	2 150#	52	3 150#		
C6F15N43B4	100	480	50-1/4	38-1/2	28-2/4	9-5/8	49	2 FNPT	49	2-1/2 FNPT	51	2 150#	52	3 150#		
C6F15N52B2	125	240	55-1/4	47-1/2	33-3/4	9-5/8	58	2 FNPT	58	2-1/2 FNPT	60	2 150#	61	3 150#		
C6F15N52B4	125	480	55-1/4	47-1/2	33-3/4	9-5/8	58	2 FNPT	58	2-1/2 FNPT	60	2 150#	61	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 6

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C6F15N61B2	150	240	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F15N61B4	150	480	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F15N88B4	222	480	96-1/4	83-1/2	76-3/4	9-5/8	94	2 FNPT	94	2-1/2 FNPT	96	2 150#	97	3 150#		
C6F15N106B4	250	480	114-1/4	101-1/2	94-3/4	9-5/8	112	2 FNPT	112	2-1/2 FNPT	114	2 150#	115	3 150#		
C6F15N120B4	285	480	128-1/4	115-1/2	108-3/4	9-5/8	126	2 FNPT	126	2-1/2 FNPT	128	2 150#	129	3 150#		

Diameter (in.): 8

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8-1/2		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C8F18N18B2	48	240	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F18N18B4	48	480	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F18N20B2	60	240	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F18N20B4	60	480	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F18N25B2	72	240	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F18N25B4	72	480	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F18N33B2	90	240	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F18N33B4	90	480	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F18N43B2	120	240	51-3/4	38-1/2	31-1/4	11-5/8	49	2 FNPT	50	2-1/2 FNPT	52	2 150#	52	3 150#		
C8F18N43B4	120	480	51-3/4	38-1/2	31-1/4	11-5/8	49	2 FNPT	50	2-1/2 FNPT	52	2 150#	52	3 150#		
C8F18N52B2	150	240	56-3/4	47	36-1/4	11-5/8	58	2 FNPT	59	2-1/2 FNPT	60	2 150#	61	3 150#		
C8F18N52B4	150	480	61-1/4	47	39-1/4	11-5/8	58	2 FNPT	59	2-1/2 FNPT	60	2 150#	61	3 150#		
C8F18N61B2	180	240	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F18N61B4	180	480	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F18N88B4	266	480	97-1/4	83	75-1/4	11-5/8	94	2 FNPT	95	2-1/2 FNPT	96	2 150#	97	3 150#		
C8F18N106B4	301	480	115-1/4	101	93-1/4	11-5/8	112	2 FNPT	113	2-1/2 FNPT	114	2 150#	115	3 150#		
C8F18N120B4	342	480	123-1/4	115	107-1/4	11-5/8	126	2 FNPT	127	2-1/2 FNPT	128	2 150#	129	3 150#		
C8F24N18B2	64	240	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F24N18B4	64	480	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F24N20B2	80	240	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F24N20B4	80	480	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F24N25B2	96	240	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F24N25B4	96	480	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F24N33B2	120	240	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F24N33B4	120	480	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F24N43B2	160	240	51-3/4	38-1/2	31-1/4	11-5/8	49	2 FNPT	50	2-1/2 FNPT	52	2 150#	52	3 150#		
C8F24N43B4	160	480	51-3/4	38-1/2	31-1/4	11-5/8	49	2 FNPT	50	2-1/2 FNPT	52	2 150#	52	3 150#		
C8F24N52B2	200	240	56-3/4	47	36-1/4	11-5/8	58	2 FNPT	59	2-1/2 FNPT	60	2 150#	61	3 150#		
C8F24N52B4	200	480	61-1/4	47	39-1/4	11-5/8	58	2 FNPT	59	2-1/2 FNPT	60	2 150#	61	3 150#		
C8F24N61B2	240	240	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F24N61B4	240	480	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F24N88B4	355	480	97-1/4	83	75-1/4	11-5/8	94	2 FNPT	95	2-1/2 FNPT	96	2 150#	97	3 150#		
C8F24N106B4	400	480	115-1/4	101	93-1/4	11-5/8	112	2 FNPT	113	2-1/2 FNPT	114	2 150#	115	3 150#		
C8F24N120B4	455	480	123-1/4	115	107-1/4	11-5/8	126	2 FNPT	127	2-1/2 FNPT	128	2 150#	129	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 10

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6-3/4 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C10F27N33B4	135	480	49-1/2	30-1/4	31-3/4	15	45	3 150#	46	4 150#	47	6 150#	48	8 150#		
C10F27N43B4	180	480	59-1/2	40-1/4	41-3/4	15	55	3 150#	56	4 150#	57	6 150#	58	8 150#		
C10F27N52B4	225	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F27N61B4	270	480	72-1/4	54-1/4	53-3/4	15	69	3 150#	70	4 150#	71	6 150#	72	8 150#		
C10F27N88B4	400	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F27N106B4	451	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F27N120B4	513	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C10F30N52B4	250	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F30N61B4	300	480	72-1/4	54-1/4	53-3/4	15	69	3 150#	70	4 150#	71	6 150#	72	8 150#		
C10F30N88B4	444	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F30N106B4	501	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F30N120B4	570	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C10F36N33B4	180	480	49-1/2	30-1/4	31-3/4	15	45	3 150#	46	4 150#	47	6 150#	48	8 150#		
C10F36N43B4	240	480	59-1/2	40-1/4	41-3/4	15	55	3 150#	56	4 150#	57	6 150#	58	8 150#		
C10F36N52B4	300	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F36N61B4	360	480	72-1/4	54-1/4	53-3/4	15	69	3 150#	70	4 150#	71	6 150#	72	8 150#		
C10F36N88B4	532	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F36N106B4	601	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F36N120B4	684	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		

Diameter (in.): 12

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C12F36N33B4	180	480	44-1/4	27	19-1/4	15	42	3 150#	43	4 150#	44	6 150#	45	8 150#		
C12F36N43B4	240	480	54-1/4	37	29-1/4	15	52	3 150#	53	4 150#	54	6 150#	55	8 150#		
C12F36N52B4	300	480	63-1/4	46	37-1/4	16	61	3 150#	62	4 150#	63	6 150#	64	8 150#		
C12F36N61B4	360	480	72-1/4	55	46-1/4	16	70	3 150#	71	4 150#	72	6 150#	73	8 150#		
C12F36N88B4	532	480	99-1/4	82	73-1/4	16	97	3 150#	98	4 150#	99	6 150#	100	8 150#		
C12F36N106B4	601	480	117-1/4	100	91-1/4	16	115	3 150#	116	4 150#	117	6 150#	118	8 150#		
C12F36N120B4	684	480	131-1/4	114	105-1/4	16	129	3 150#	130	4 150#	131	6 150#	132	8 150#		
C12F48N33B4	240	480	44-1/4	27	19-1/4	15	42	3 150#	43	4 150#	44	6 150#	45	8 150#		
C12F48N43B4	320	480	54-1/4	37	29-1/4	15	52	3 150#	53	4 150#	54	6 150#	55	8 150#		
C12F48N52B4	400	480	63-1/4	46	37-1/4	16	61	3 150#	62	4 150#	63	6 150#	64	8 150#		
C12F48N61B4	480	480	72-1/4	55	46-1/4	16	70	3 150#	71	4 150#	72	6 150#	73	8 150#		
C12F48N88B4	710	480	99-1/4	82	73-1/4	16	97	3 150#	98	4 150#	99	6 150#	100	8 150#		
C12F48N106B4	801	480	117-1/4	100	91-1/4	16	115	3 150#	116	4 150#	117	6 150#	118	8 150#		
C12F48N120B4	911	480	131-1/4	114	105-1/4	16	129	3 150#	130	4 150#	131	6 150#	132	8 150#		

Diameter (in.): 14

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		

Circulation Heaters

Type IC

Diameter (in.): 14

Watt Density (w/sq.in.): 60

GCI Circulation Heater Drawing No. IC-3					D = 6		Nozzles		Nozzles		Nozzles		Nozzles	
Dimensions (Inches) A, B, B1, C, D, E,					E = 10		Option 1		Option 2		Option 3		Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in.)	B1	G4(in.)
C14F45N33B4	225	480	44-3/4	27	18-1/4	17	43	3 150#	44	4 150#	45	6 150#	46	8 150#
C14F45N43B4	300	480	54-3/4	37	28-1/4	17	53	3 150#	54	4 150#	55	6 150#	56	8 150#
C14F45N52B4	375	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#
C14F45N61B4	450	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#
C14F45N88B4	666	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#
C14F45N106B4	735	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#
C14F45N120B4	836	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#
C14F48N52B4	400	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#
C14F48N61B4	480	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#
C14F48N88B4	710	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#
C14F48N106B4	800	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#
C14F48N120B4	912	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#
C14F54N33B4	270	480	44-3/4	27	18-1/4	17	43	3 150#	44	4 150#	45	6 150#	46	8 150#
C14F54N43B4	360	480	54-3/4	37	28-1/4	17	53	3 150#	54	4 150#	55	6 150#	56	8 150#
C14F54N52B4	450	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#
C14F54N61B4	540	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#
C14F54N88B4	800	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#
C14F54N106B4	902	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#
C14F54N120B4	1026	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#
C14F60N52B4	500	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#
C14F60N61B4	600	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#
C14F60N88B4	888	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#
C14F60N106B4	1002	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#
C14F60N120B4	1140	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#
C14F72N52B4	600	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#
C14F72N61B4	720	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#
C14F72N88B4	1066	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#
C14F72N106B4	1202	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#
C14F72N120B4	1368	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#