

Cast-In Heaters



Finned Air-Cooled

Standard Cast-In Finned Heater Designs for Air-Cooled Extruder Systems

Aluminum Finned Cast-In Band Heaters are used as an alternative to Liquid Cooled Cast-In Band Heaters for heating and cooling the barrels of plastic extruders.

As a standard, Finned Cast-In Band Heaters are manufactured in aluminum alloys because this material provides very good thermal conductive properties. For applications requiring higher operating temperatures and/or higher watt densities, bronze or brass alloys can be used.

Precision machining of the inside diameter yields superior heat transfer between the heater and the machine barrel, thereby

ensuring uniform heating and cooling of the extrusion process. The heaters are secured to the barrel either by Stainless Steel Clamp Bands or by means of Bolt Clamping the heater halves together.

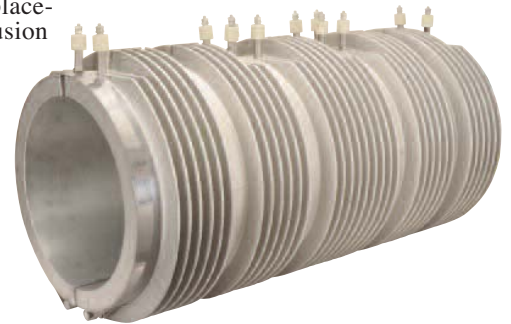
Finned Cast-In Band Heaters can be designed to meet the mechanical and physical constraints of existing extruder shroud systems. They are manufactured for Original Equipment Manufacturers (OEM) and maintenance (MRO) applications to customer specifications.

Finned Cast-In Heater End Types

Type FS1 – Finned Cast-In Heater without Side Flanges

These cast-in band heaters are normally made to be used in conjunction with the Cool to-the Touch and Multi-Versal Shroud Systems. They can also be used as stand alone replacements for other heating and cooling extrusion systems.

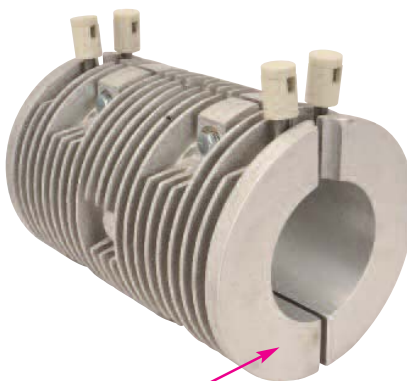
The standard mounting method for these designs is bolt clamping. An alternative mounting method is to use stainless steel straps. Type "T" screw terminals are the standard termination. For other termination styles see pages 3-54 and 3-55.



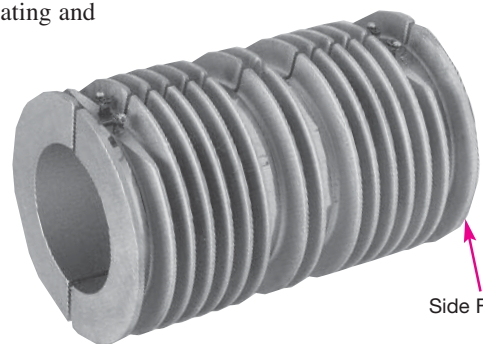
Type FS2 – Finned Cast-In Heater with Side Flanges

These cast-in band heaters are normally made to be used in conjunction with the Arctic Cast Shroud System. They can also be used as stand alone replacements for other heating and air cooling extrusion systems.

The standard mounting method for these designs is bolt clamping. An alternative mounting method is to use stainless steel straps. Type "E" screw terminals are the standard termination. For other termination styles see pages 3-54 and 3-55.



Side Flange



Side Flange



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Stock and Standard (Non-Stock) Finned Aluminum Cast-In Band Heaters for Extrusion Processing

Standard Sizes and Ratings Listed by Extruder Size
These Sizes and Ratings are among the most commonly used. They will provide the shortest delivery times.

Stock Items Are Shown In RED

I.D. in	O.D. in	Length in	Material	Watts Each Half	Volts Each Half	Phase	Termination Type	Clamping Type	Heater End Type (pg 3-44)	Cast-In Heater Part Number
2.25	4	5.5	Bronze	600	230	1	R	Bolt	FS2	CBH12388
3	4.75	7.5	Bronze	1000	230	1	R	Bolt	FS2	CBH12387
3.75	8	9.875	Alum 319	1350	207	1	S	Bolt	FS2	CBH10404
4	8	8.75	Alum 443	2000	230	1	S	Strap	FS1	CBH09461
4	8	9	Alum 319	1500	230	1	S	Strap	FS1	CBH08712
4	8	11	Alum 319	1850	230	1	S	Strap	FS1	CBH08713
4.375	8.25	12.25	Alum 319	2000	230	1	R	Strap	FS1	CBH01139
4.5	8.25	12.5	Alum 319	2500	190	1	C4	Bolt	FS2	CBH14634
4.5	8.5	12	Alum 319	2750	240	1	R	Bolt	FS2	CBH06640
4.5	8.5	12	Alum 319	2750	200	1	R	Bolt	FS2	CBH08651
4.5	9	11.5	Alum 319	2000	230	1	S	Strap	FS1	CBH05533
4.921	8.421	9	Bronze	2500	480	3	C4	Strap	FS1	CBH08576
4.922	7.5	5.906	Alum 319	1630	230	1	T7	Bolt	FS2	CBH10044
4.922	7.5	7.087	Alum 319	2180	230	1	T7	Bolt	FS2	CBH10045
5	7.75	12.75	Alum 319	2625	200	1	R	Bolt	FS2	CBH11859
5	9	13	Alum 319	2750	240	1	S	Strap	FS1	CBH12840
5.002	9.25	12.25	Alum 319	2000	240	1	T	Strap	FS1	CBH03319
5.5	8.75	12.5	Alum 319	2800	600	1	S	Bolt	FS1	CBH07945
5.5	8.75	12.5	Alum 319	2800	460	1	S	Bolt	FS1	CBH07952
5.5	8.75	12.5	Alum 319	2800	240	1	S	Bolt	FS1	CBH10362
5.5	9.5	12	Alum 319	2300	240	1	S	Strap	FS1	CBH06724
5.5	9.5	12.5	Alum 319	2800	240	1	S	Bolt	FS2	CBH04982
5.5	9.5	12.5	Alum 319	2800	415	1	S	Bolt	FS2	CBH12906
6	10.5	11.5	Alum 319	2700	230	1	S	Strap	FS1	CBH02588
6	10.5	14.5	Alum 319	3500	230	1	T7	Strap	FS1	CBH02432
6.25	10.25	6.25	Alum 319	1400	200	1	S	Bolt	FS2	CBH08653
6.25	10.25	6.25	Alum 319	1700	240	1	R	Bolt	FS2	CBH06373
6.25	10.25	13.688	Alum 319	3000	230	1	R	Strap	FS2	CBH01406
6.25	10.25	17.75	Alum 319	5800	240	1	R	Bolt	FS2	CBH06623
6.25	11.25	15.875	Alum 319	5000	230	1	S	Bolt	FS1	CBH03365
6.3	9.55	15.75	Alum 319	5000	240	1	C4	Strap	FS1	CBH03793
6.3	9.55	15.75	Alum 319	5000	380	1	S	Strap	FS1	CBH11795
6.3	10.05	15.75	Alum 319	5000	380	1	S	Bolt	FS1	CBH12907
6.3	10.05	15.75	Alum 319	5000	415	1	S	Bolt	FS1	CBH12908
6.3	10.05	15.75	Alum 319	5000	440	1	S	Bolt	FS1	CBH12668
6.5	9.5	15	Alum 319	3250	230	1	T7	Bolt	FS1	CBH14207
6.5	9.5	17.5	Alum 356	3400	230	1	T	Bolt	FS2	CBH07553
6.5	10.5	13	Alum 319	4300	230	1	E	Bolt	FS2	CBH09631
6.5	10.5	13	Alum 319	4300	190	1	E	Bolt	FS2	CBH09424
6.6	10.625	14.75	Alum 319	3250	240	1	S	Strap	FS1	CBH07649
6.625	9.875	18	Alum 319	4400	600	1	S	Bolt	FS1	CBH07946
7	10.25	18	Alum 319	6000	290	3	E	Strap	FS2	CBH09420
7.5	11	16.5	Bronze	5100	230	1	R	Strap	FS2	CBH11105
7.5	11.25	19	Alum 319	8000	380	1	S	Bolt	FS1	CBH12447

Key for Abbreviations found under the Termination Column

- C4** = Screw Terminal with Ceramic Cover
- E** = Right-Angle Lug
- F** = Flexible Lead Wire
- R** = 90° Blockhead Screw Terminal
- R1** = Flexible Armor Cable
- R1A** = Stainless Steel Wire Overbraid
- R2** = Blockhead Screw Terminal
- S** = Screw Terminal with Heavy Duty Ceramic Insulator
- T** = Screw Terminal with Mica Insulator
- T7** = Screw Terminal with Ceramic Insulator

CONTINUED

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Standard (Non-Stock) Finned Aluminum Cast-In Band Heaters for Extrusion Processing

Continued from previous page...

I.D. in	O.D. in	Length in	Material	Watts Each Half	Volts Each Half	Phase	Termination Type	Clamping Type	Heater End Type (pg 3-44)	Cast-In Heater Part Number
7.5	11.5	19.5	Alum 319	6000	240	1	C4	Strap	FS1	CBH10129
7.5	12	18	Alum 319	4500	230	1	S	Strap	FS2	CBH07058
7.625	11.625	14.438	Alum 319	3500	230	1	R	Strap	FS2	CBH01401
7.68	12	8.46	Alum 319	4000	230	1	R1A	Bolt	FS2	CBH10371
7.68	13.43	8.46	Alum 319	4000	230	1	R1A	Bolt	FS2	CBH07906
7.68	13.43	8.46	Alum 319	4000	230	1	C4	Bolt	FS2	CBH09690
8	12	8	Alum 319	2500	240	1	S	Bolt	FS2	CBH06574
8	12	8	Alum 319	2500	300	1	S	Bolt	FS2	CBH06144
8	12	8	Alum 319	2850	240	1	S	Bolt	FS2	CBH06642
8	12	10	Alum 319	3550	240	1	R	Bolt	FS2	CBH06643
8	12	17.5	Alum 319	4600	575	3	S	Bolt	FS1	CBH08418
8	12	20	Alum 319	5600	240	1	S	Bolt	FS2	CBH11002
8	12.01	12.625	Alum 319	2875	240	1	R	Bolt	FS2	CBH13795
8.25	12.25	16	Alum 319	7000	230	3	E	Bolt	FS2	CBH10653
8.25	12.25	16	Alum 319	10000	200	3	R1	Bolt	FS2	CBH11081
8.268	11.504	21.457	Alum 319	7500	240	3	C4	Strap	FS1	CBH04167
8.5	11	12.75	Alum 319	4500	460	3	S	Bolt	FS1	CBH12389
8.5	11.5	20.5	Alum 319	6300	240	3	T	Bolt	FS1	CBH10923
8.5	11.75	10	Alum 319	4425	190	3	E	Strap	FS2	CBH14903
8.5	12	8.5	Alum 319	2750	230	1	S	Strap	FS1	CBH05417
8.5	12.25	6	Alum 356	2250	230	1	S	Bolt	FS1	CBH13082
8.502	13.5	12.75	Alum 319	4500	415	3	S	Bolt	FS1	CBH09902
8.502	13.5	12.75	Alum 319	4500	480	3	S	Bolt	FS1	CBH07212
9.5	12.5	27.25	Alum 319	12000	230	3	T	Bolt	FS1	CBH09759
9.5	13	5	Alum 319	2250	480	1	R2	Bolt	FS2	CBH14691
9.5	13.25	25.5	Alum 319	15000	380	1	S	Bolt	FS1	CBH12448
9.5	13.75	20.5	Alum 319	6000	575	3	E	Bolt	FS1	CBH10947
9.502	14.5	13	Alum 319	5250	480	3	T7	Bolt	FS2	CBH07231
9.75	13.25	21.25	Alum 319	7500	480	3	T	Bolt	FS1	CBH14419
9.75	13.25	25	Alum 319	9000	230	3	T	Bolt	FS1	CBH10138
9.75	13.75	17.75	Alum 319	7500	230	1	S	Bolt	FS1	CBH07658
9.75	13.75	22	Alum 319	7000	230	1	C4	Bolt	FS2	CBH10177
9.75	13.75	22	Alum 319	11000	200	3	F	Bolt	FS2	CBH11080
9.75	13.875	23.875	Alum 319	6000	230	1	R	Strap	FS2	CBH02945
9.75	14	19.438	Alum 319	6000	230	1	R	Strap	FS2	CBH01262
9.84	14.156	6.06	Alum 319	4000	230	1	R1A	Bolt	FS2	CBH10372
9.875	13.875	8.5	Alum 319	3500	240	1	R	Bolt	FS2	CBH06644
10	13	8	Alum 319	4600	240	1	T	Bolt	FS2	CBH06570
10.039	13.289	12.992	Alum 319	6000	230	3	C4	Strap	FS1	CBH04738
10.623	13.625	13.75	Alum 319	3000	480	1	T	Strap	FS1	CBH11140
12.25	18.5	11.563	Alum 356	5500	460	1	R1A	Bolt	FS1	CBH11575
13	17	7	Alum 319	3450	190	1	R	Bolt	FS2	CBH09810
13	17	7	Alum 319	3450	240	1	R	Bolt	FS2	CBH06583
15.75	20.875	3.25	Alum 319	2000	282	1	F	Bolt	FS2	CBH10084
18.897	24.02	3.346	Alum 319	2250	266	1	F	Bolt	FS2	CBH10224

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| R = 90° Blockhead Screw Terminal | T = Screw Terminal with Mica Insulator |
| R1 = Flexible Armor Cable | T7 = Screw Terminal with Ceramic Insulator |