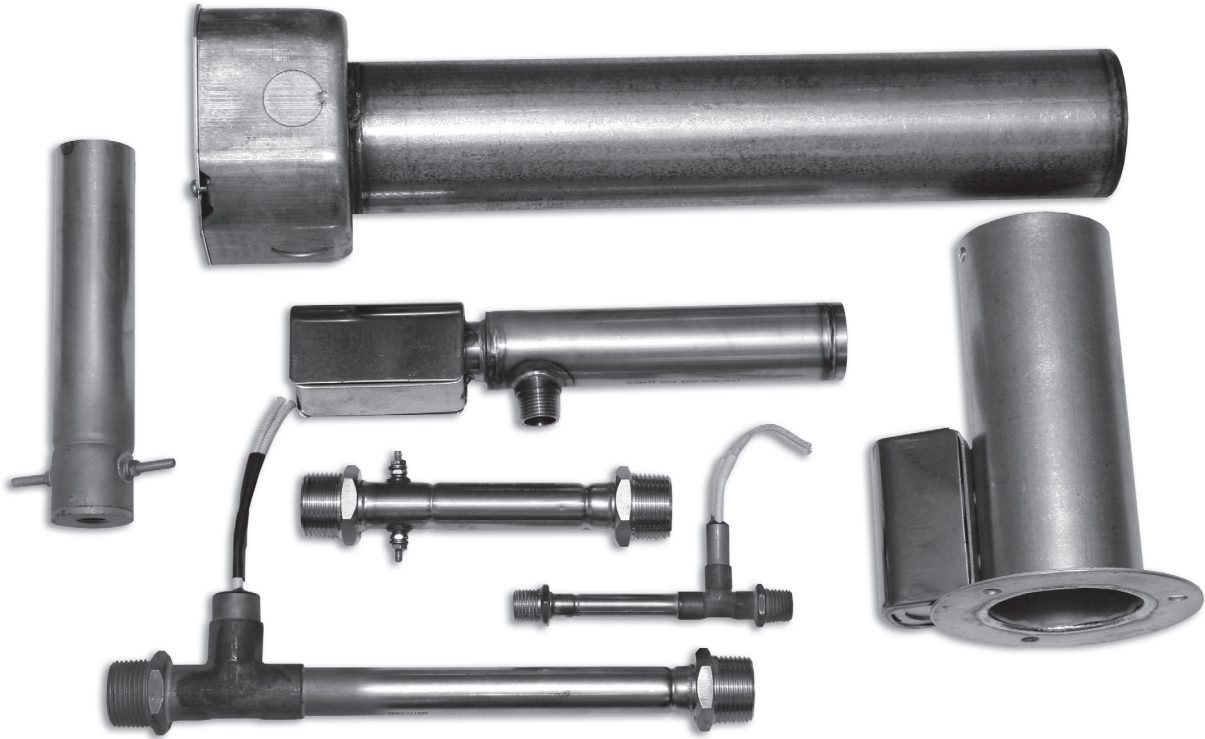




Air Process Heaters

AIR



Applications

Baking, Drying, Laminating, Metal Working, Packaging, Plastic Welding, Preheating, Sealing, Soldering, Shrink Fitting, Synthetic Fabric Sewing.

Features

- The Air Process heater will provide hot air and gas up to 1000°F(540°C) with infinite control by varying the voltage and air velocity supplied. Units are fitted with a tubing "T" for convenient power lead outlet, while larger diameters can be supplied with post terminals on the sheath for direct electrical connections.
- For easier installation, Hotwatt can supply male or female NPT threaded fittings, hose adapters, flanges, or custom fittings to your specifications.
- Made in U.S.A.

Multiple Heat

Whenever it is necessary to have a single unit incorporate two or more different wattages, Hotwatt will provide air heaters from 1/8" diameter and up with multiple circuits. Some uses of these units include: quick heat-up, standby circuits for maintenance of low temperatures, providing different wattages when there is a wide variation in thermal loads, and replacing more expensive variable powerstats for wattage control.

Tolerances

Wattage tolerances are held to ± 5 , -10% or better at the voltage specified.



Air Process Heaters

Tee Type — 3/8" to 1 1/4" diameter

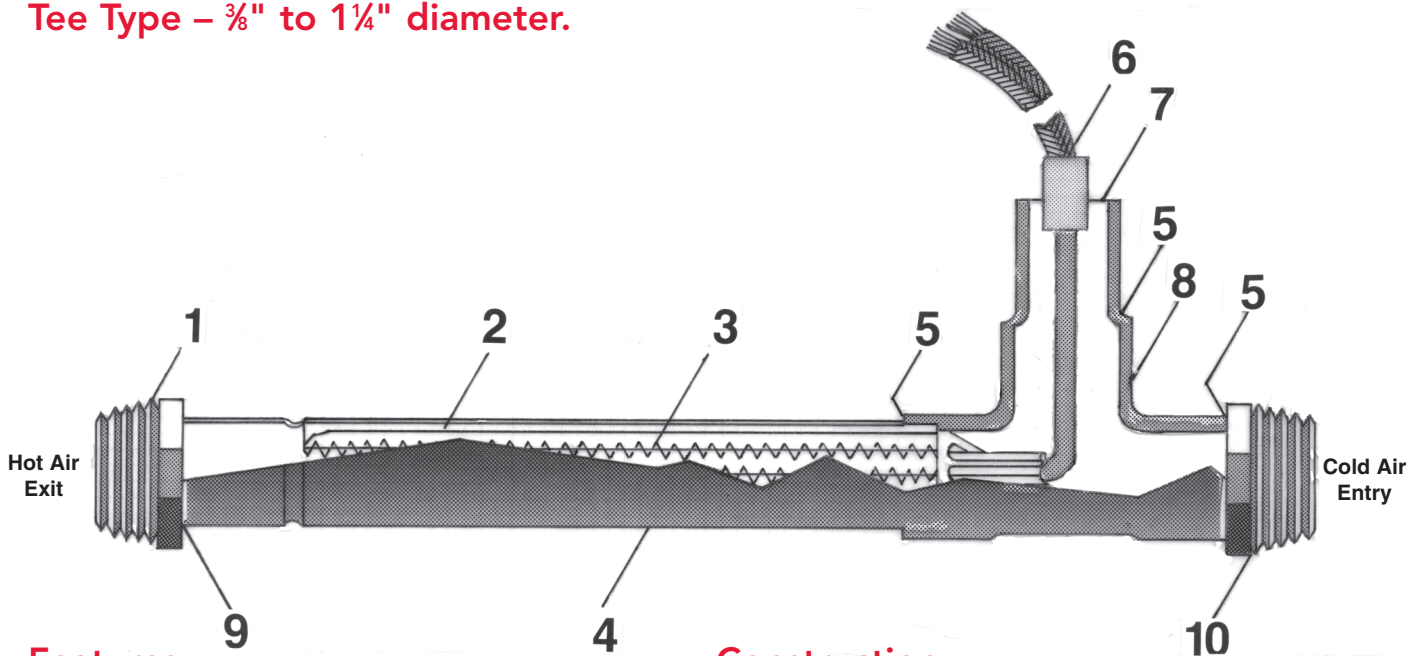
Air Heater Selection

- Determine the volume of air or gas(SCFM) you will be heating.
- Determine temperature rise in degrees Fahrenheit($\Delta T^{\circ}F$).
- Calculate wattage required as follows:

$$\text{Watts} = \frac{\text{SCFM} \times \Delta T^{\circ}F}{3}$$

- Take into consideration the physical size requirements of your application and determine from the specifications chart for each size, the air heater best suited for your application. High watt densities shown in the specifications charts are subject to factory approval due to resistance wire limitations.
- For temperature control, see page 54 and 131-134.

Tee Type — 3/8" to 1 1/4" diameter.



Features

- Exit air temperatures to 1000°F (540°C).
- Standard pressure rating is 80 psig at room temperature.
- May be used with recirculating air up to 250°F.
- Designed for horizontal use.
- For use with clean, dry air.
- Made in U.S.A.

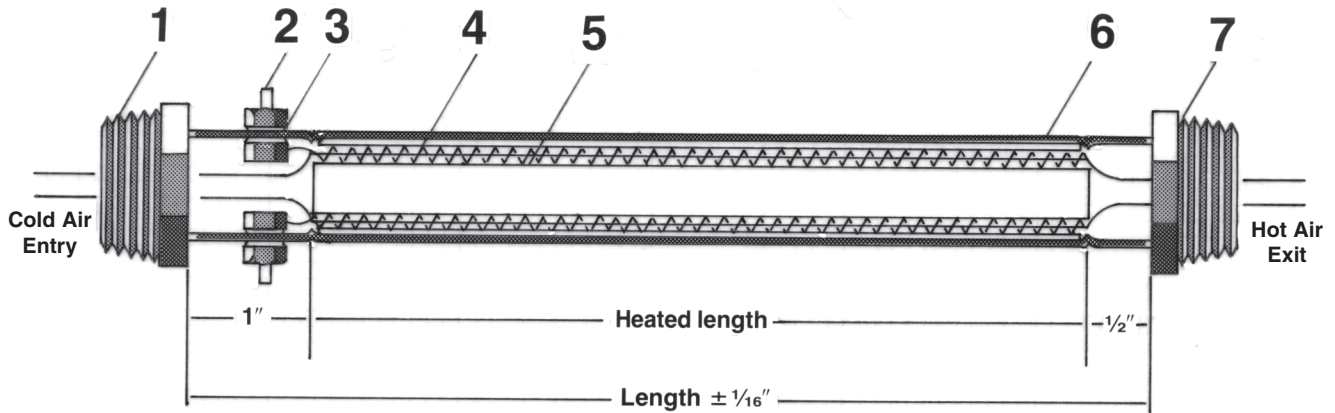
Construction

- 1 Optional stainless steel bushing.
- 2 Ceramic coil support.
- 3 Resistance element.
- 4 Stainless steel sheath.
- 5 Silver solder.
- 6 Fiberglass insulated leads.
- 7 Epoxy seal.
- 8 Copper tee.
- 9 Heliarc weld.
- 10 Optional brass bushing.



Air Process Heaters

Alternate Style – 3/4" to 1 1/4" diameter.



AIR

Features

- Low pressure applications.
- Post type terminals.
- Specify 'SF3' for alternate style.

Construction

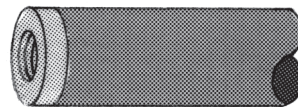
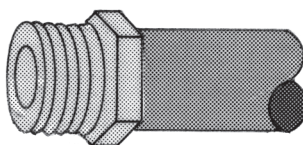
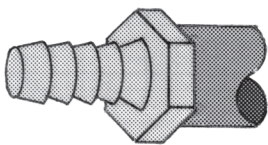
- | | | | |
|---|-------------------------|---|---------------------------|
| 1 | Optional brass bushing. | 5 | Ceramic coil support. |
| 2 | Post terminals. | 6 | Stainless steel sheath. |
| 3 | Mica insulation. | 7 | Optional st. st. bushing. |
| 4 | Resistance element. | | |

Optional Fittings

HF: Hose adapter (entry only).

MF: Male fittings.

FF: Female fittings.



How To Order

After determining the wattage required for application, select heater based upon physical space available, maximum SCFM, temperature, and pressure as shown on the following pages.

Tee Type Air Heaters are supplied with 6" (SF2) leads, all other models with Post (SF3) terminals. Longer leads are available upon request. Specify length required if other than standard.

Review stock list for in-stock items.

Specify: catalog number, wattage, voltage, and special features if required. Be sure to specify optional fitting number as suffix to base catalog number.

Example: AH50-5MF/300W120V/SF2-36.

Special Features Available.

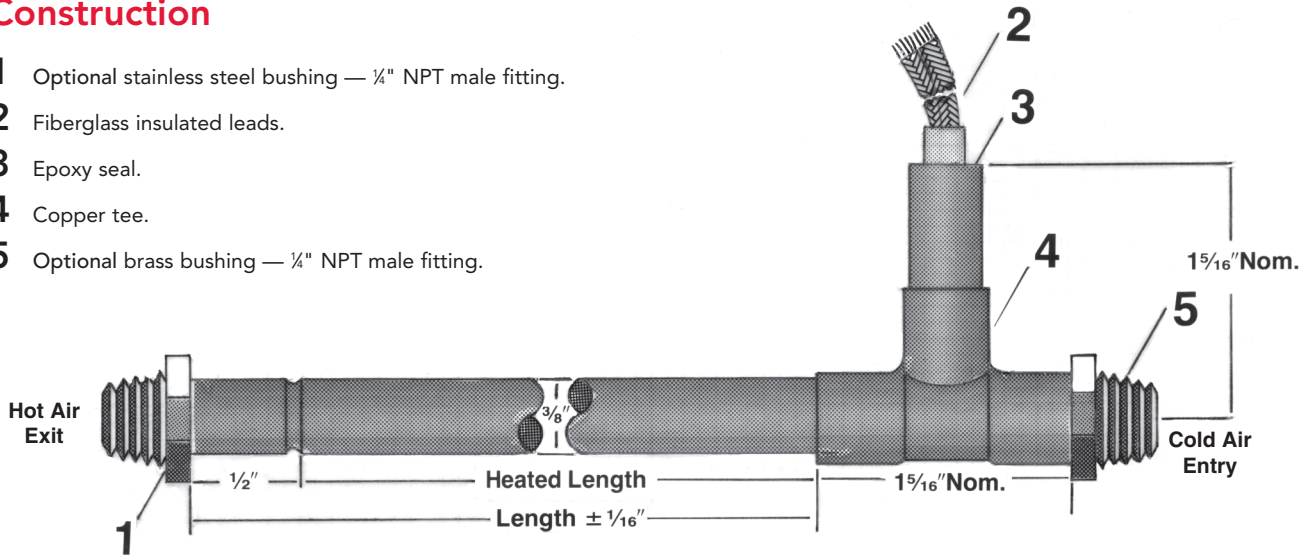


Air Process Heaters

3/8" Diameter – Horizontal use only

Construction

- 1 Optional stainless steel bushing — 1/4" NPT male fitting.
- 2 Fiberglass insulated leads.
- 3 Epoxy seal.
- 4 Copper tee.
- 5 Optional brass bushing — 1/4" NPT male fitting.



▼ Manufactured Items ▼

Specifications

Maximum Amperage: 6

Cross Sectional Flow Area: .03 sq. in.

Maximum CFM: 8

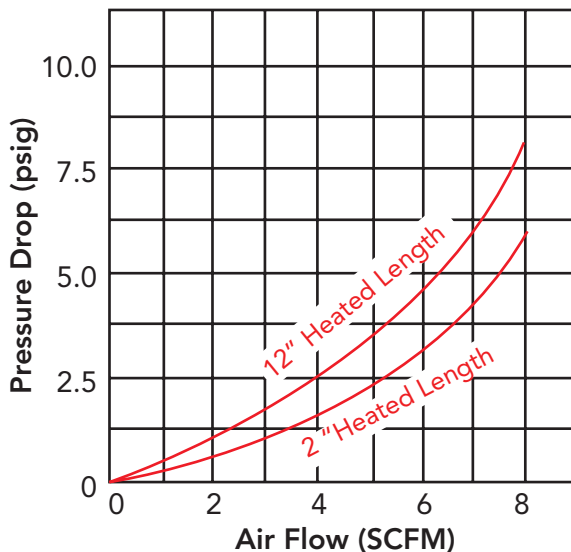
CFM	Max. Watts/linear in of heated length
1	60
2	60
4	100
6	150
8	200

Pressure rating: 80 psig.

Sizes

Diameter: 3/8"

Length	Heated Length	Cat. No. w/o fittings	Cat. No. w/Male NPT fittings
2"	1 1/2"	AH37-2	AH37-2MF
3"	2 1/2"	AH37-3	AH37-3MF
4"	3 1/2"	AH37-4	AH37-4MF
5"	4 1/2"	AH37-5	AH37-5MF
6"	5 1/2"	AH37-6	AH37-6MF
7"	6 1/2"	AH37-7	AH37-7MF
8"	7 1/2"	AH37-8	AH37-8MF
9"	8 1/2"	AH37-9	AH37-9MF
10"	9 1/2"	AH37-10	AH37-10MF



Special Features Available

MF: 1/4" NPT male fittings (add MF to catalog number).

HF: Hose adapter on entry and only (add HF to catalog number and specify I.D. of hose).

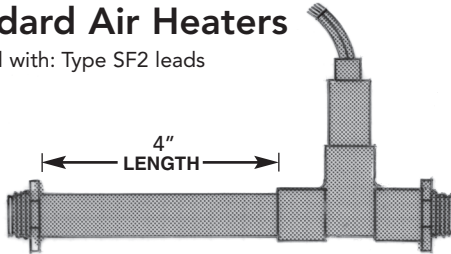


Air Process Heaters

▼ IN STOCK ITEMS ▼

Standard Air Heaters

Supplied with: Type SF2 leads



Length	Cat. No.	Dia.	Wattage	Voltage	Watts/		Lead Length	Fittings
					Linear Inch	Weight		
4"	AH37-4	3/8"	50	120	14	.12	12"	
4"	AH37-4MF	3/8"	50	120	14	.18	12"	1/4" NPT
4"	AH37-4	3/8"	200	120	57	.12	12"	
4"	AH37-4MF	3/8"	200	120	57	.18	12"	1/4" NPT
4"	AH37-4	3/8"	200	240	57	.12	12"	
4"	AH37-4MF	3/8"	200	240	57	.18	12"	1/4" NPT

AIR

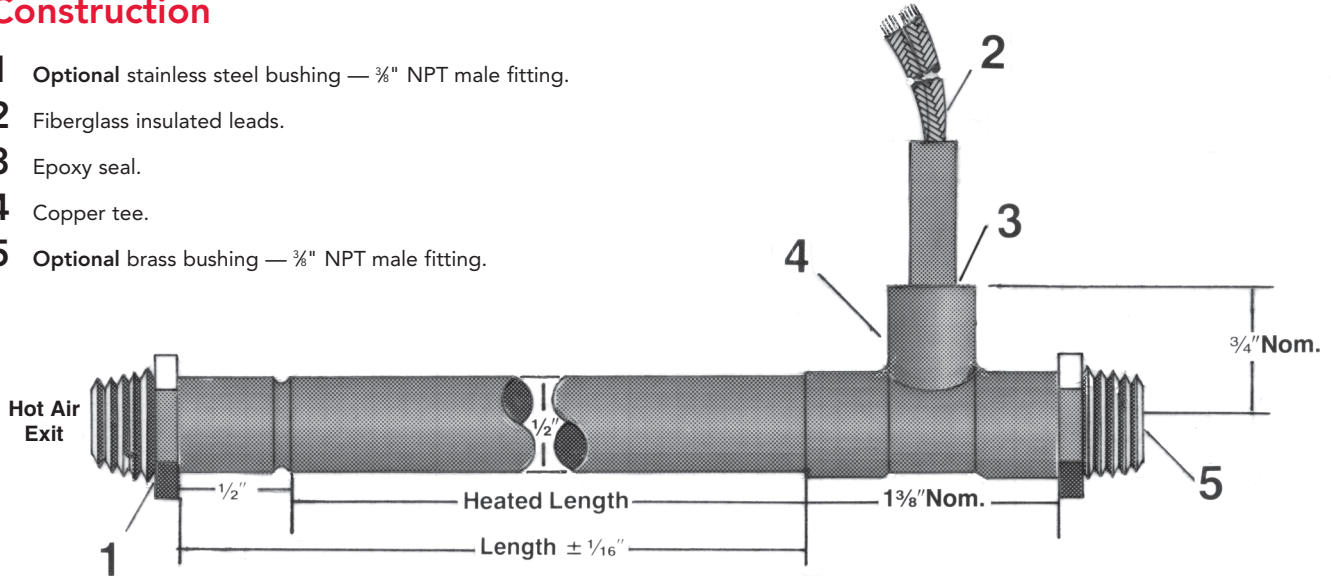


Air Process Heaters

1/2" Diameter – Horizontal use only

Construction

- 1 Optional stainless steel bushing — 3/8" NPT male fitting.
- 2 Fiberglass insulated leads.
- 3 Epoxy seal.
- 4 Copper tee.
- 5 Optional brass bushing — 3/8" NPT male fitting.



▼ Manufactured Items ▼

Specifications

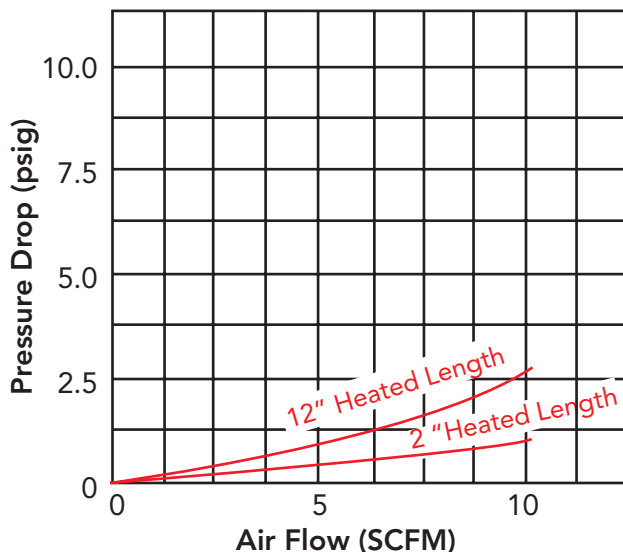
Maximum Amperage: 10

Cross Sectional Flow Area: .036 sq. in.

Maximum CFM: 10

CFM	Max. Watts/linear in of heated length
1	80
2	80
4	100
6	150
8	200
10	250

Pressure rating: 80 psig.



Sizes

Diameter: 1/2"

Length	Heated Length	Cat. No. w/o fittings	Cat. No. w/Male NPT fittings
2"	1 1/2"	AH50-2	AH50-2MF
3"	2"	AH50-3	AH50-3MF
4"	3 1/2"	AH50-4	AH50-4MF
5"	4 1/2"	AH50-5	AH50-5MF
6"	5 1/2"	AH50-6	AH50-6MF
7"	6 1/2"	AH50-7	AH50-7MF
8"	7 1/2"	AH50-8	AH50-8MF
9"	8 1/2"	AH50-9	AH50-9MF
10"	9 1/2"	AH50-10	AH50-10MF

Special Features Available

MF: 3/8" NPT male fittings (add MF to catalog number).

FF: 1/8" NPT female fittings (add FF to catalog number).

HF: Hose adapter on entry end only (add HF to catalog number and specify I.D. of hose).

AIR

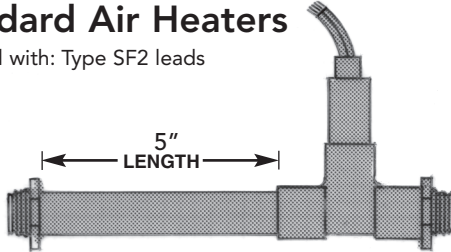


Air Process Heaters

▼ IN STOCK ITEMS ▼

Standard Air Heaters

Supplied with: Type SF2 leads



Length	Cat. No.	Dia.	Wattage	Voltage	Watts/		Lead Length	Fittings
					Linear Inch	Weight		
5"	AH50-5	½"	100	120	22	.18	12"	
5"	AH50-5MF	½"	100	120	22	.25	12"	¾" NPT
5"	AH50-5	½"	400	120	88	.18	12"	
5"	AH50-5MF	½"	400	120	88	.25	12"	¾" NPT
5"	AH50-5	½"	400	240	88	.18	12"	
5"	AH50-5MF	½"	400	240	88	.25	12"	¾" NPT

AIR

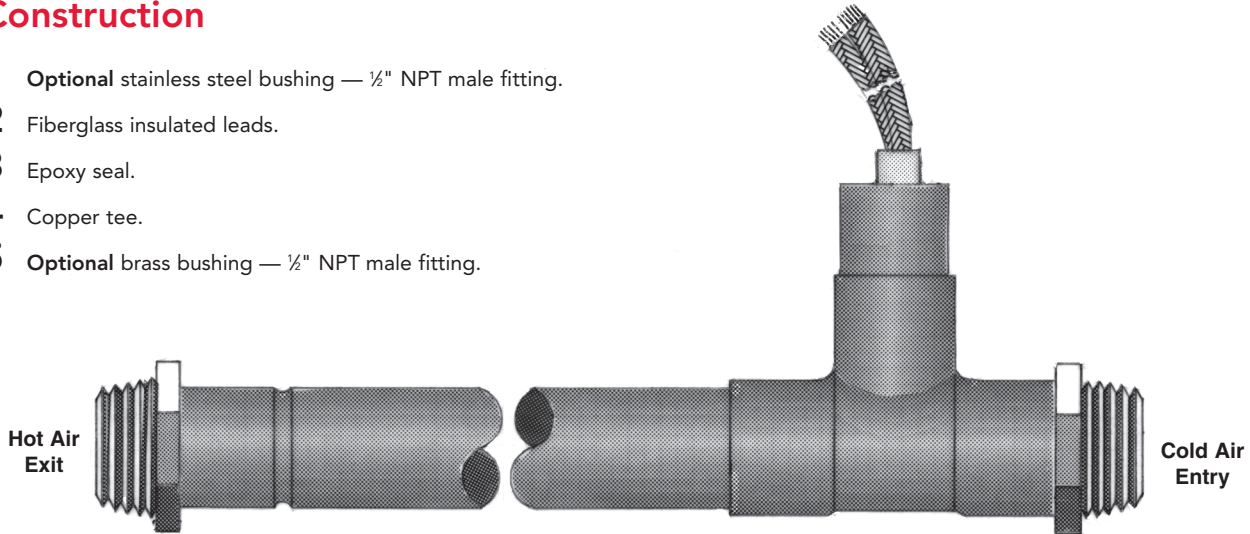


Air Process Heaters

5/8" Diameter – Horizontal use only

Construction

- 1 Optional stainless steel bushing — 1/2" NPT male fitting.
- 2 Fiberglass insulated leads.
- 3 Epoxy seal.
- 4 Copper tee.
- 5 Optional brass bushing — 1/2" NPT male fitting.



AIR

▼ Manufactured Items ▼

Specifications

Maximum Amperage: 15

Cross Sectional Flow Area: .072 sq. in.

Maximum CFM: 15

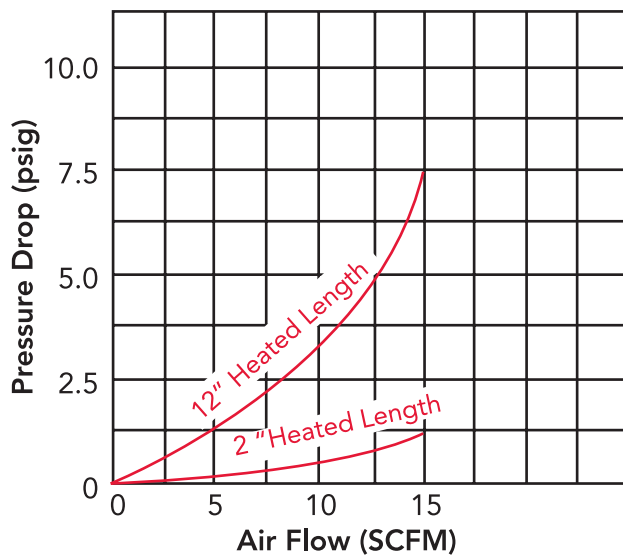
CFM	Max. Watts/linear in of heated length
1	100
2	100
4	100
6	150
8	200
10	250
15	375

Pressure rating: 80 psig.

Sizes

Diameter: 5/8"

Length	Heated Length	Cat. No. w/o fittings	Cat. No. w/Male NPT fittings
3"	2 1/2"	AH62-3	AH62-3MF
4"	3 1/2"	AH62-4	AH62-4MF
5"	4 1/2"	AH62-5	AH62-5MF
6"	5 1/2"	AH62-6	AH62-6MF
7"	6 1/2"	AH62-7	AH62-7MF
8"	7 1/2"	AH62-8	AH62-8MF
9"	8 1/2"	AH62-9	AH62-9MF
10"	9 1/2"	AH62-10	AH62-10MF
12"	11 1/2"	AH62-12	AH62-12MF



Special Features Available

MF: 1/2" NPT male fittings (add MF to catalog number).

FF: 1/4" NPT female fittings (add FF to catalog number).

HF: Hose adapter on entry and only (add HF to catalog number and specify I.D. of hose).

SF-28: Three Phase

SF-29: Multiple Heat circuits — Specify wattages

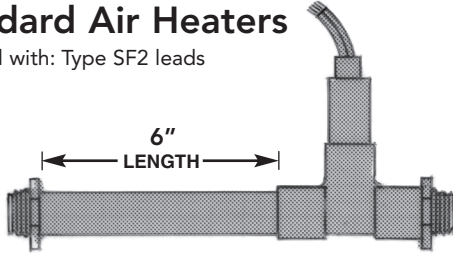


Air Process Heaters

▼ IN STOCK ITEMS ▼

Standard Air Heaters

Supplied with: Type SF2 leads



Length	Cat. No.	Dia.	Wattage	Voltage	Watts/ Linear Inch	Weight	Lead Length	Fittings
6"	AH62-6	5/8"	165	120	30	.35	12"	
6"	AH62-6MF	5/8"	165	120	30	.70	12"	1/2" NPT
6"	AH62-6	5/8"	650	120	118	.35	12"	
6"	AH62-6MF	5/8"	650	120	118	.70	12"	1/2" NPT
6"	AH62-6	5/8"	650	240	118	.35	12"	
6"	AH62-6MF	5/8"	650	240	118	.70	12"	1/2" NPT

AIR

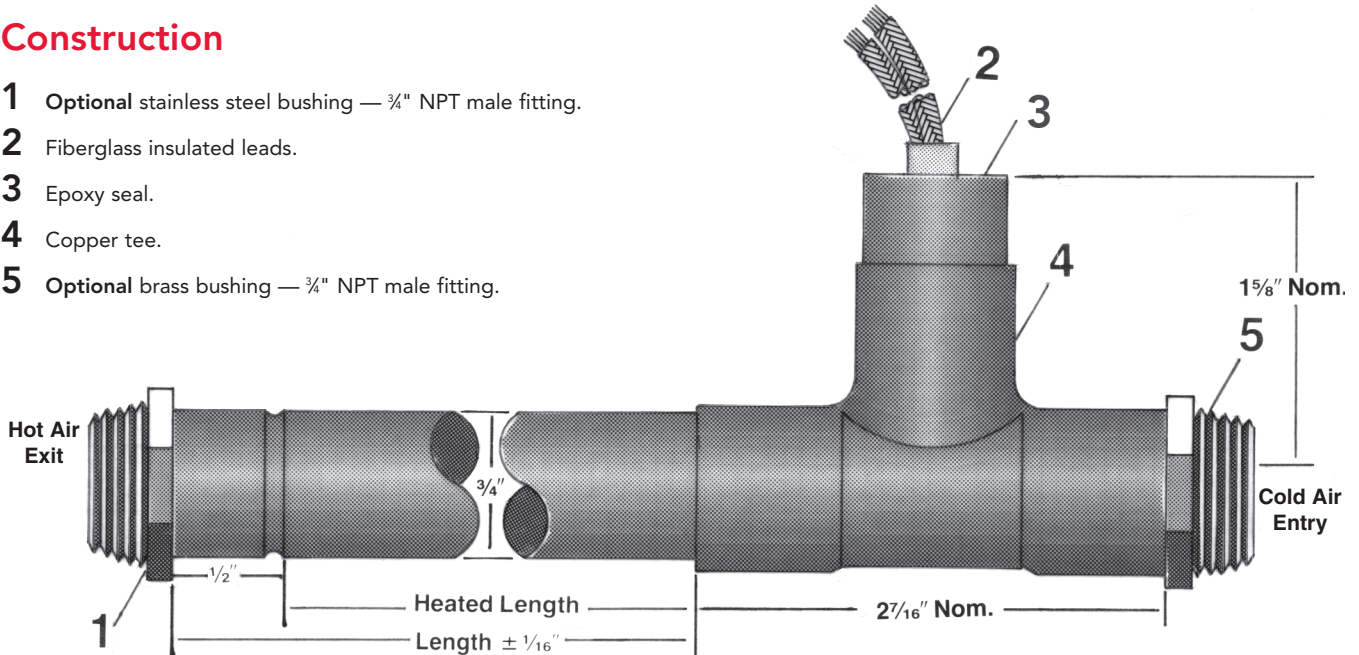


Air Process Heaters

3/4" Diameter – Horizontal use only

Construction

- 1 Optional stainless steel bushing — 3/4" NPT male fitting.
- 2 Fiberglass insulated leads.
- 3 Epoxy seal.
- 4 Copper tee.
- 5 Optional brass bushing — 3/4" NPT male fitting.



▼ Manufactured Items ▼

Specifications

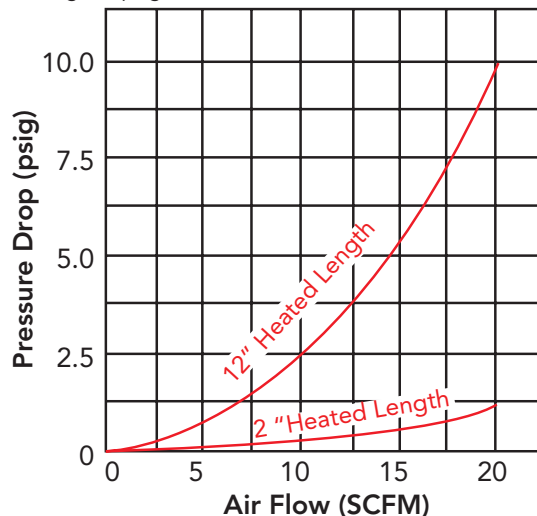
Maximum Amperage: 20

Cross Sectional Flow Area: .126 sq. in.

Maximum CFM: 20

CFM	Max. Watts/linear in of heated length
1	120
2	120
4	120
6	150
8	200
10	250
15	375
20	500

Pressure rating: 80 psig.



Sizes

Diameter: 3/4"

Length	Heated Length	Cat. No. w/o fittings	Cat. No. w/Male NPT fittings
3"	2 1/2"	AH75-3	AH75-3MF
4"	3 1/2"	AH75-4	AH75-4MF
5"	4 1/2"	AH75-5	AH75-5MF
6"	5 1/2"	AH75-6	AH75-6MF
7"	6 1/2"	AH75-7	AH75-7MF
8"	7 1/2"	AH75-8	AH75-8MF
9"	8 1/2"	AH75-9	AH75-9MF
10"	9 1/2"	AH75-10	AH75-10MF
12"	11 1/2"	AH75-12	AH75-12MF

Special Features Available

MF: 3/4" NPT male fittings (add MF to catalog number).

FF: 1/4" NPT female fittings (add FF to catalog number).

HF: Hose adapter on entry and only (add HF to catalog number and specify I.D. of hose).

SF-3: Alternate style — Post terminals

SF-28: Three Phase

SF-29: Multiple Heat circuits — Specify wattages

SF-32: High voltage (above 250V — consult factory)

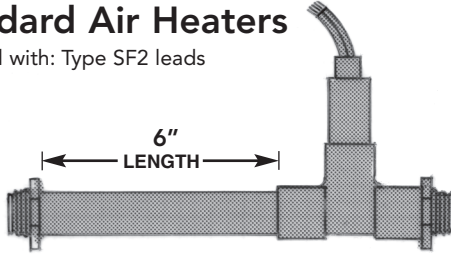


Air Process Heaters

▼ IN STOCK ITEMS ▼

Standard Air Heaters

Supplied with: Type SF2 leads



Length	Cat. No.	Dia.	Wattage	Voltage	Watts/ Linear Inch	Weight	Lead Length	Fittings
6"	AH75-6	3/4"	190	120	34	.43	12"	
6"	AH75-6MF	3/4"	190	120	34	.68	12"	3/4" NPT
6"	AH75-6	3/4"	750	120	136	.43	12"	
6"	AH75-6MF	3/4"	750	120	136	.68	12"	3/4" NPT
6"	AH75-6	3/4"	750	240	136	.43	12"	
6"	AH75-6MF	3/4"	750	240	136	.68	12"	3/4" NPT

AIR

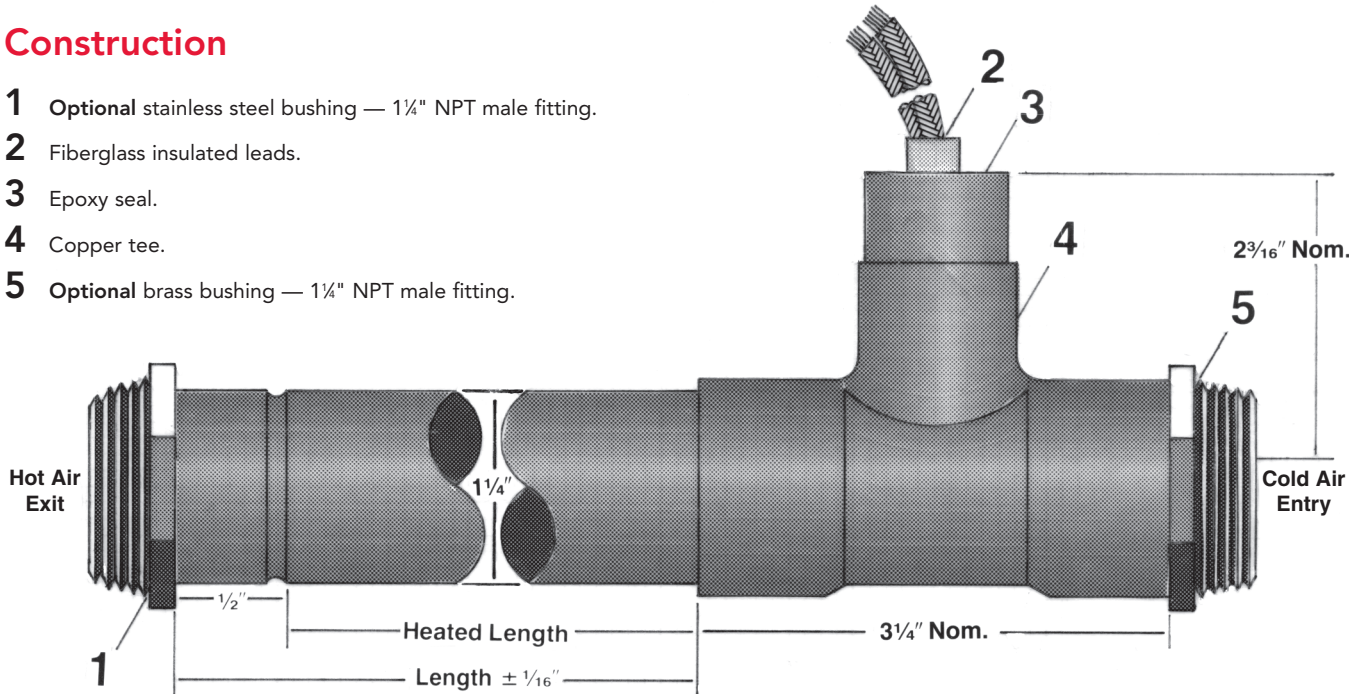


Air Process Heaters

1¼" Diameter – Horizontal use only

Construction

- 1 Optional stainless steel bushing — 1¼" NPT male fitting.
- 2 Fiberglass insulated leads.
- 3 Epoxy seal.
- 4 Copper tee.
- 5 Optional brass bushing — 1¼" NPT male fitting.



▼ Manufactured Items ▼

Specifications

Maximum Amperage: 25

Cross Sectional Flow Area: .348 sq. in.

Maximum CFM: 50

CFM	Max. Watts/linear in of heated length
1	200
2	200
4	200
6	200
8	200
10	250
15	375
20	500
25	625
30	750
35	875
40	1000
50	1250

Pressure rating: 80 psig.

Special Features Available

MF: 1¼" NPT male fittings (add MF to catalog number).

FF: ½" NPT female fittings (add FF to catalog number).

HF: Hose adapter on entry and only (add HF to catalog number and specify I.D. of hose).

SF-3: Alternate style — Post terminals

SF-28: Three Phase

SF-29: Multiple Heat circuits — Specify wattages

SF-32: High voltage (above 250V — consult factory)

Sizes

Diameter: 1¼"

Length	Heated Length	Cat. No. w/o fittings	Cat. No. w/Male NPT fittings
4"	3½"	AH1.2-4	AH1.2-4MF
5"	4½"	AH1.2-5	AH1.2-5MF
6"	5½"	AH1.2-6	AH1.2-6MF
7"	6½"	AH1.2-7	AH1.2-7MF
8"	7½"	AH1.2-8	AH1.2-8MF
9"	8½"	AH1.2-9	AH1.2-9MF
10"	9½"	AH1.2-10	AH1.2-10MF
12"	11½"	AH1.2-12	AH1.2-12MF
14"	13½"	AH1.2-14	AH1.2-14MF

