

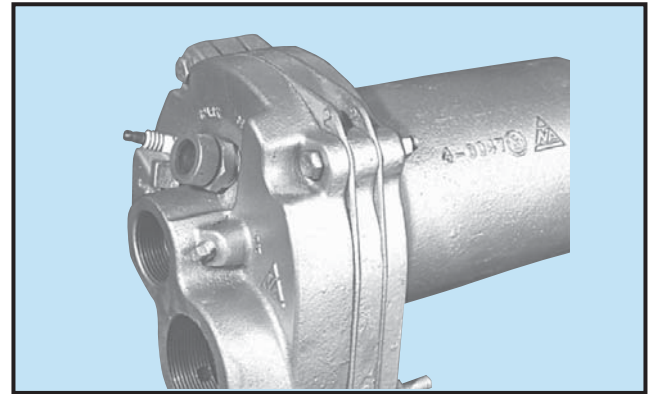
The Aardvark is the all-metal version of the Tempest® high velocity burner, the largest selling nozzle-mix burner in the world.

It can be used as an alternate to the Tempest in most installations except those that exceed 2000 F--the 4442A Burner's metal "tile" should not be exposed directly to temperatures above 1600 F. But if the snout is protected from direct radiation or if combustion air flows through the burner whenever it is at higher temperatures, appropriate furnaces, kilns, etc. are not a problem.

The Aardvark often is easier to install than a conventional burner with tile, e.g., screwing the Aardvark's threaded snout directly into a fitting on the metal shell of a fiber wall furnace.

This all-metal burner is very useful as a complete, high velocity air heater for drying or other low temperature applications. It can be screwed onto a hot air distribution system to direct its warm or hot gases in a specific pattern or to specific areas.

The 4442A Burner can simplify continuous heating of pieces in high speed production line processes. Appropriate Aardvark-fired chambers along the line eliminate need to rout parts to and from separate heat treat facilities.



The versatile Aardvark, complete as shown. It fits almost anywhere, delivers high velocity burner products over a wide range of temperatures.

In an air heater, Aardvark discharge air temperatures must be high enough to overcome radiation losses in distribution piping, and piping materials must be compatible with those temperatures. If air temperatures do not exceed 1000 F, the Aardvark tile can be insulated to retard heat loss.

Aardvark Features

- **Wide Operating Range.** Can deliver up to 25,000 scfh of air at any temperature from 300 to 1600 F (or higher per the above).
- **High Velocity.** Restricted tile exit forces hot gases to leave the burner at extremely high velocity, optimizing convective heat transfer.
- **Flame Supervision.** Monitor with any standard UV or rod detector. With UV, the burner can operate with up to 2000% excess air (about 300 F hot mix). With flame rods, excess air is limited to 500% (200% for 4442A-7), which corresponds to about 900 F hot mix.
- **Simplified Piping.** All primary and "secondary" air enters the heater through a single connection. Air temperatures can be controlled by throttling fuel only.
- **Simple, Reliable Operation.** Lights readily over a wide range of pressures. It is extremely stable--it does not have to be "nursed" if operating conditions fluctuate.
- **Compact Size.** As a self-contained, direct-fired air heater, it uses no cumbersome secondary air chamber; so it can fit into tight spaces.
- **Low Pressure Air.** Unlike other compact air heaters, the Aardvark does not require compressed air.

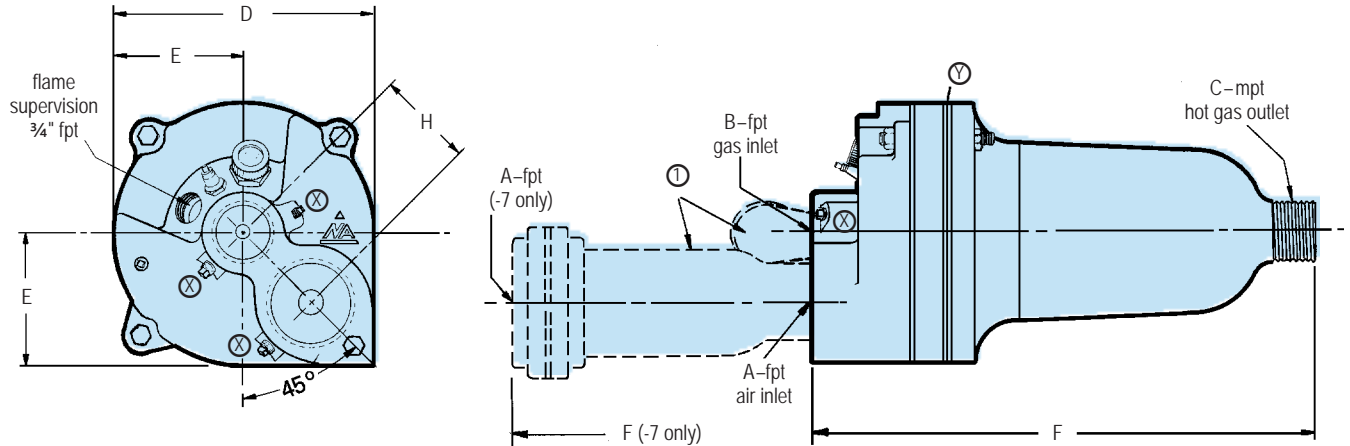
Air Capacities, scfh, with 16 psi at burner inlet

scfh air	Burner designation						
	-2	-3	-4	4442A- -4-S	-5	-6	-7
Burning on stoichiometric air/gas ratio†	2330	3540	5800	8 950	9 480	14 900	24 800
Not burning (use to size blower)	3000	4190	6480	11 000	10 600	16 700	29 500

† When burning, capacities vary slightly with excess air rate.

DIMENSIONS

inches



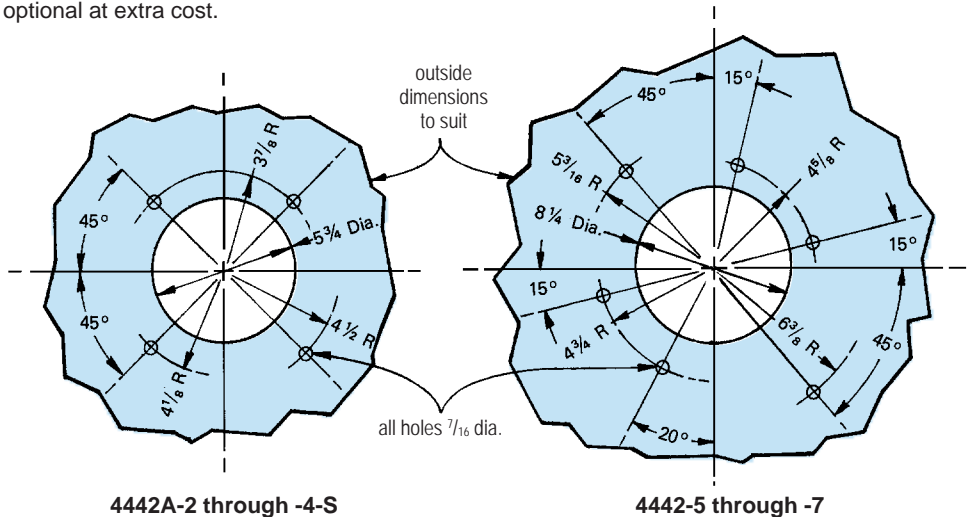
Burner designation	dimensions in inches							wt, lb	flame rod length ^②
	A	B	C	D	E	F	H		
4442A-2	1 1/4	3/4	2	7 1/2	3 3/4	14 9/16	2 3/4	35	8 1/4
4442A-3	1 1/2	3/4	2	7 1/2	3 3/4	14 9/16	2 3/4	35	8 1/4
4442A-4	2	1	2	7 1/2	3 3/4	14 9/16	2 3/4	35	8 1/4
4442A-4-S	2	1	2	7 1/2	3 3/4	14 9/16	2 3/4	35	8 1/4
4442A-5	2 1/2	1 1/4	3	10	5	16 3/16	3 5/8	70	7 9/16
4442A-6	3	1 1/2	3	10	5	16 3/16	3 5/8	70	8
4442A-7	4	2	4	10	5	26 1/8	3 5/8	90	7 3/4

① 4442A-7 has special arrangement of air and gas connections. See Specifications 4442.

② From outer boss of flame rod connection.

⊗ All pressure taps are 1/8" fpt. Shutoff valves and hose connectors are optional at extra cost.

If needed, a mounting flange can be made in the field from 3/8" steel plate. Dimensions are shown at right. Flange is inserted between the two gaskets (Y) adjacent to the metal "tile". Bolts are long enough to accommodate the flange.



Discharge Connections. The Aardvark's threaded tile discharge connection can be connected to distribution piping with a straight or reducing coupling or flange union.

Caution: All fittings, flanges, and distribution piping must be suitable for temperatures anticipated at burner discharge.

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.