

HOT AIR CAPACITY - 800°F PREHEATED AIR

It is not economical to field convert a standard Tempest I Burner (good for 400°F preheated air) to the -H Model good for 800°F, since the gasket, mounting plate, and tile have to be replaced.

The following flow data is provided as guideline information only. In the field, it is hard to accurately measure and maintain the temperature at each burner. As a result, the flow rates at other main air pressures are not proportional to the square root of the pressure drop. Capacities in the following tables are correct only if air and gas pipe nipples screwed into the burner have a straight length equal to at least 5 pipe diameters. Data listed is for stoichiometric firing. Burners can be operated stably at up to 24 osig. Actual lab data is listed below.

For maximum accuracy, use a flue gas analyzer or external metering orifices (see Bulletin 8697).

Sizes -1 through -7 are available in the -H Models.

4442-1-H - 800°F Main Air	Air Pressure, osi (UA Pressure Tap)				
	1	4	9	16	20
Capacity, scfh main air (burning stoichiometric)	220	450	750	950	1100
Max. % XSAir ^①	300+	600+	950+	1250+	1500+
Max. % XSFuel	30+	30+	30+	30+	30+
Flame Length, in.	6	7	8	10	10
Flame Diameter, in.	2	2	2	2	2

4442-2-H - 800°F Main Air	Air Pressure, osi (UA Pressure Tap)				
	1	4	9	16	22
Capacity, scfh main air (burning stoichiometric)	430	825	1250	1700	1950
Max. % XSAir	1000+	3000+	3000+	3000+	3000+
Max. % XSFuel	30+	30+	30+	30+	30+
Flame Length, in.	14	12	12	14	14
Flame Diameter, in.	2.0	1.5	1.5	1.5	1.5

4442-3-H - 800°F Main Air	Air Pressure, osi (UA Pressure Tap)				
	1	4	9	16	22
Capacity, scfh main air (burning stoichiometric)	615	1210	1840	2480	2920
Max. % XSAir	950	2000	3000	3000+	3000+
Max. % XSFuel	30+	30+	30+	30+	30+
Flame Length, in.	8	8	10	12	14
Flame Diameter, in.	2	2	2	2	2

^① Limited by reading on 8697-02-62 plate.