**Jacketed Tiles.** 4545 Burners are available with metal support jackets around the tile for applications where the tile is not supported by furnace refractory.

Jackets are available in three different metals and have maximum temperature rating for each. They must be protected with sufficient insulation so as not to exceed rated temperature.

Maximum temperature rating for jacket metals depends upon frequency of heat-up/cool-down cycles. As an example, batch annealing furnaces that are heated and cooled every day should use the "intermittent exposure" ratings. Continuous annealing furnaces that remain at the same temperature for months at a time, can use the higher "continuous" rating.

Designation	Jacket metal	Continuous max. temp.	Intermittent exposure
4545LC	carbon steel	700°F	700°F
4545L4	304 stainless	1600°F	1500°F
4545L9	309 stainless	1900°F	1800°F

Table 1. Combustion air capacities, scfh (for Btu/hr, multiply by 100)

Burner	air pressure drop across the burner in osi							
designation	0.1	1	5	6	8	12	16	
4545-6	1 180	3 710	8 300	9 100	10 500	12 800	14 800	
4545-7	2 070	6 540	14 600	16 000	18 500	22 700	26 200	
4545-8-A	3 350	10 600	23 700	26 000	30 000	36 700	42 400	
4545-8-B	5 360	17 000	37 900	41 600	48 000	58 800	68 000	
4545-9	9 840	31 100	69 600	76 200	88 000	108 000	124 000	

Table 2. Flame characteristics with natural gas

	Stability Limits				
Burner	Air at	excess	excess	flame	
Size	burner, osi	air, %	fuel, %	length, feet	
-6	1	160	75	2.5	
	16	120	73	3.0	
-7	1	480	100	3.0	
	16	330	85	4.0	
-8-A	1	270	100	4.0	
	16	200	100	6.0	
-8-B	1	300	100	4.5	
	16	200	100	6.0	
-9	1	1500	100	7.0	
	16	1300	100	9.0	

To order, specify: 4545-(code)-(A or B if applicable) (modifiers: LC, L4 or L9) burner complete

*Examples:* 4545-9 burner complete

4545-8-BL4 burner complete with 304 SST jacket

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. Components in combustion systems may exceed 160°F (71°C) surface temperatures and present hot surface contact hazard. Fives North American Combustion, Inc. suggests the use of combustion systems that are in compliance with all Safety Codes, Standards, Regulations and Directives; and care in operation.



CONTACT US: Fives North American Combustion, Inc. 4455 East 71st Street - Cleveland, OH 44105 - USA Tel: +1 216 271 6000 - Fax: +1 216 373 4237 Email: fna.sales@fivesgroup.com

