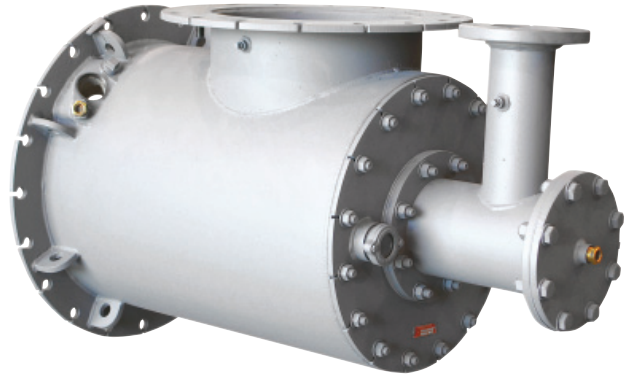


- Gas-only burner
- Conventional forward flame pattern
- 8 to 56 million Btu/hr
- For furnaces, melters, steel reheat, soaking pits, dryers and air heaters
- Broad stability range
- Chambers up to 2200F
- Excellent for low Btu fuels



**4795 Magna-Flame™ Gas Burners** are used on a wide variety of industrial heating applications. Flame lengths vary from 9 to 35 feet. Operation is quiet, and the flame is stable over a wide range of air/gas ratios: from more than 50% rich to 1000% excess air. Burners can be used in cold, sealed-in chambers running on stoichiometric ratio or lean.

**CONSTRUCTION.** Body is fabricated of heavy duty welded steel with a refractory ring and alloy air distribution disc in the front. Connections for pilot and flame detector are available in a variety of locations which are specified during ordering. See Dimensions, page 2.

**CONTROL.** Use either mass flow control or cross-connected regulator systems. Gas pressure requirement at the burner is approximately 0.6 times the air pressure.

**IGNITION AND FLAME SUPERVISION.**

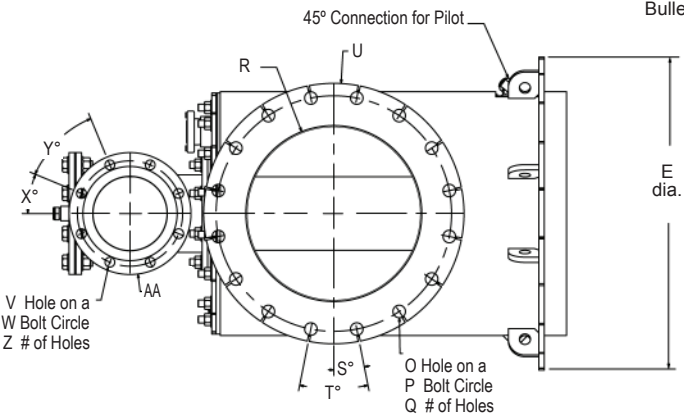
Magna-Flame burners should be pilot ignited ①. Pilot ignition must occur at 1" wc main air pressure or less. Appropriate 4014 gas-boosted pilots are to be used with this burner (sold separately), and are shown on the dimension table. Pilot operation must be interrupted to prevent overheating of the mounting. Self-checking UV scanners (sold separately) are recommended for flame supervision. See Bulletin 8832 for selection of UV adapters. It is possible for a UV scanner mounted on this burner to sight flame(s) of other burners in the same firing chamber. Consult Fives North American for configuration guidance on multiple burner applications.

**INSTALLATION.** The burner does not include a tile. The tunnel shape shown on the dimension drawing (page 2) must be built into the combustion chamber wall. See Supplement DF-M1 for installation recommendations.

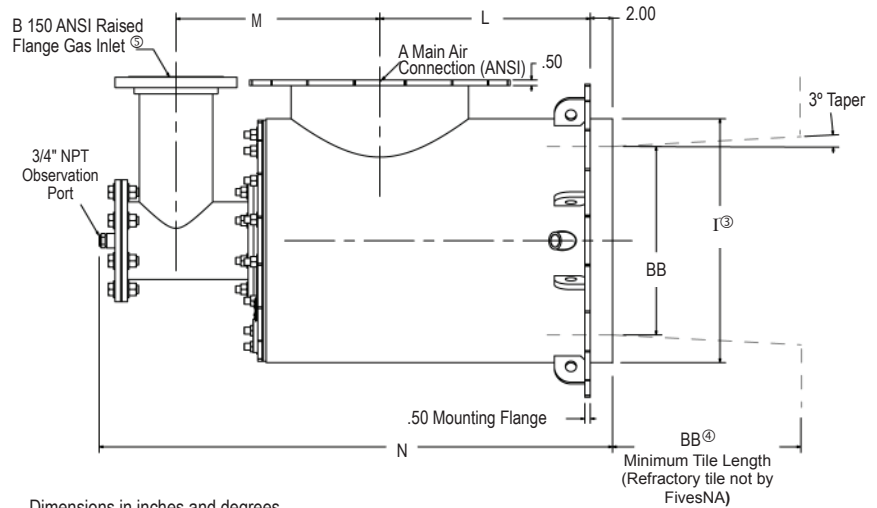
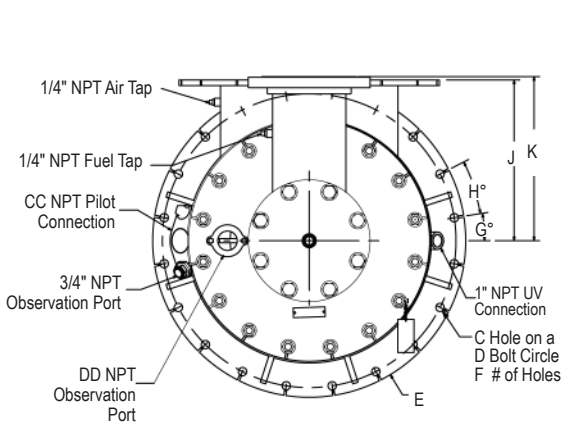
Burner Designation	Combustion Air Capacities (scfh) Multiply by 100 to get Btu per hour Air pressure drop across the burner, osi				Maximum % Excess Air Air pressure in osi			Flame Dimensions @ 8 osi main air and 10% XSair	
	1.0	5.0	6.0	8.0②	0.2	4.0	8.0	Length	Diameter
<b>4795-9-A</b>	29 000	65 000	71 000	82 000	840	1090	1090	9'	3'
<b>4795-9-B</b>	36 000	80 500	88 000	102 000	840	1150	1100	9'	3'
<b>4795-10</b>	47 500	106 000	116 000	134 000	800	1100	1150	11'	4'
<b>4795-12</b>	70 000	157 000	172 000	198 000	800	1100	1150	15'	5'
<b>4795-14</b>	95 500	214 000	234 000	270 000	800	1100	1300	20'	5'
<b>4795-16</b>	121 000	269 000	295 000	340 000	800	1000	1400	25'	5'
<b>4795-18</b>	155 000	346 000	380 000	438 000	800	1100	1400	30'	6'
<b>4795-20</b>	200 000	447 000	490 000	565 000	800	1100	1500	35'	6'

① Because of a positive pressure in the burner, it is difficult to light with a torch unless the air is turned very low and a strong pressure torch is used.  
② Maximum recommended pressure.

**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 urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.



DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.



Dimensions in inches and degrees

Size Designation	A	B	C	D	E	F	G°	H°	I <sup>ⓐ</sup>	J	K	L	M	N	O	P	Q
4795-9-A, B	8	3	0.75	18.5	20.25	16	11.25	22.5	14	9.5	9.25	11	10.94	29.75	0.88	11.75	8
4795-10	10	4	0.75	20.5	22.25	16	11.25	22.5	16	11	14.75	12.75	13.06	34.12	1	14.25	12
4795-12	12	4	0.75	22.5	24.25	16	11.25	22.5	18	12.5	14.75	15	14.44	37.75	1	17	12
4795-14	14	6	0.75	24.5	26.25	16	11.25	22.5	20	13.5	14.81	18	17.38	44.31	1.13	18.75	12
4795-16	16	6	0.75	26.5	28.25	20	9	18	22	14.5	14.81	19	18.38	46.31	1.13	21.25	16
4795-18	18	6	0.75	28.5	30.25	20	9	18	24	15.5	14.81	19.5	18.88	47.31	1.25	22.75	16
4795-20	20	8	0.88	30.5	32.25	20	9	18	26	16.5	14	19.63	21.13	50.81	1.25	25	20

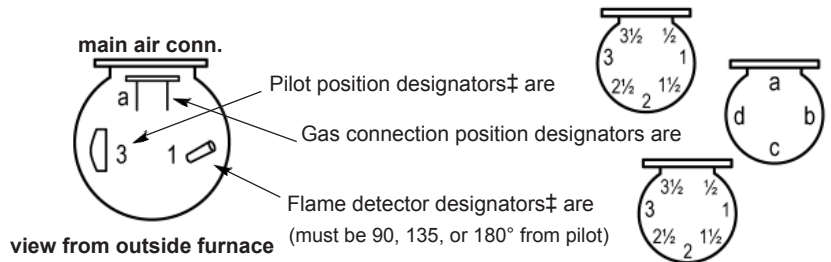
Size Designation	R	S°	T°	U	V	W	X°	Y°	Z	AA	BB	CC	DD	Pilot Assembly	Wt. lbs.
4795-9-A, B	8.25	22.5	45	13.5	0.75	6	45	90	4	7.5	10	1.25	3/4	4014-1-T	190
4795-10	10.25	15	30	16	0.75	7.5	22.5	45	8	9	11	1.5	3/4	4014-2-T	250
4795-12	12.25	15	30	19	0.75	7.5	22.5	45	8	9	12.5	1.5	3/4	4014-2-T	300
4795-14	13.88	15	30	21	0.88	9.5	22.5	45	8	11	14.75	2	3/4	4014-3-AT	410
4795-16	15.88	11.25	22.5	23.5	0.88	9.5	22.5	45	8	11	17	2	2"	4014-3-AT	460
4795-18	17.88	11.25	22.5	25	0.88	9.5	22.5	45	8	11	19.25	2	2"	4014-3-AT	505
4795-20	19.88	9	18	27.5	0.88	11.75	22.5	45	8	13.5	21.5	2	2"	4014-3-BT	630

ⓐ Furnace opening should be 1/2" larger than dimension I for -9 thru -16, and 3/4" larger than dimensions I for -18 and -20.

ⓑ After a length of 1.2 X BB flare out the tile at a 30° angle all around (60° included angle).

ⓒ Flat face ANSI flange available upon request.

**Arrangement Designators** are specified relative to the main air connection at 12 o'clock and should be listed for **pilot, gas connection, and flame detector in that order.**



‡ Good practice dictates that neither pilot nor flame detector be below the centerline of a horizontally-mounted burner.

**ORDER MUST SPECIFY:** (1) Burner designation (such as 4795-14): (2) Arrangement designation for pilot, gas connection and flame safety positions in that order such as: 4795-14, arrangement 3a1 (for the arrangement shown above).