

## North American Burners Dual-Fuel



### 6795 Magna-Flame™ Dual-Fuel Burners

- For furnaces, melters, steel reheat, soaking pits, dryers, and air heaters
- Dual Fuel Burner, gas or oil (light or heavy grade oil)
- Conventional forward flame pattern
- 12 to 56 million Btu/h HHV

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# Product Overview | 6795 Magna-Flame™

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## FEATURES

- Broad stability range
- Chambers up to 2200°F
- Includes high pressure tip emulsion atomizer
- Atomizer for light or heavy fuel oil

## 6795 MAGNA-FLAME™ DUAL-FUEL BURNERS

feature the same quiet combustion and large capacities at relatively low pressures as Series 4795 Magna-Flame™ Gas Burners. They have efficient "tip-emulsion" type oil atomizers for #2 or #6 fuel oil (heated to reduce its viscosity to 100 SSU).

All sizes have provisions for gas pilots and ultraviolet flame supervision devices. Both the gas and oil flames are tile-stable over a wide range of air/fuel ratios. The burners can be used in cold sealed-in combustion chambers with light oil or gas.

**ATOMIZER.** This burner is equipped with a Series 5643 "tip-emulsion" type atomizer. Oil and steam (or compressed air) are required at a minimum of 80 psig at the burner. The atomizers should be retracted (6") during gas only operation. (If low pressure air atomization is desired, see Supplement 6795-2.)

"Maximum" steam and compressed air consumption rates are shown below. They are for a no-oil flow condition; actual usage will always be less--from 0.75 to 2.0 pounds of steam (or 17 to 44 scf air) per gallon of oil, depending on the quantity of oil being atomized. (Use these figures to determine cost of the atomizing medium. Use the "maximum" figures shown below to size piping.)

## IGNITION AND FLAME SUPERVISION.

Magna-Flame burners should be pilot ignited<sup>Ⓢ</sup>. Pilot ignition must occur at 1" w.c. main air pressure or less. Appropriate 4014 gas-boosted pilots (sold separately) 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 Combustion, Inc. for configuration guidance on multiple burner applications.

**CONTROL.** The burner can be operated with a constant steam pressure, turning down the oil and air only. The maximum available turndown on stoichiometric ratio is about 3:1. If the steam is throttled with the oil and air, a turndown ratio of 5:1 is possible. Gas pressure required is approximately 0.6 times the air pressure.

Burners are stable when running lean. The suggested maximum excess air is 50% at low fire and 150% at high fire, but these limits often can be exceeded under the proper conditions.

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

**REPLACEMENT AND SPARE PARTS. NOTE: In June, 2009, the 6795 burner was redesigned to change from a square mounting flange to round and replace the threaded gas connection with a flanged gas tee. When replacing burners, or ordering parts, please inform your sales professional of the complete part number, sales order and/or manufactured date. This information is stamped on a tag located on the burner back plate.**

# Capacity, Dimensions | 6795 Magna-Flame™

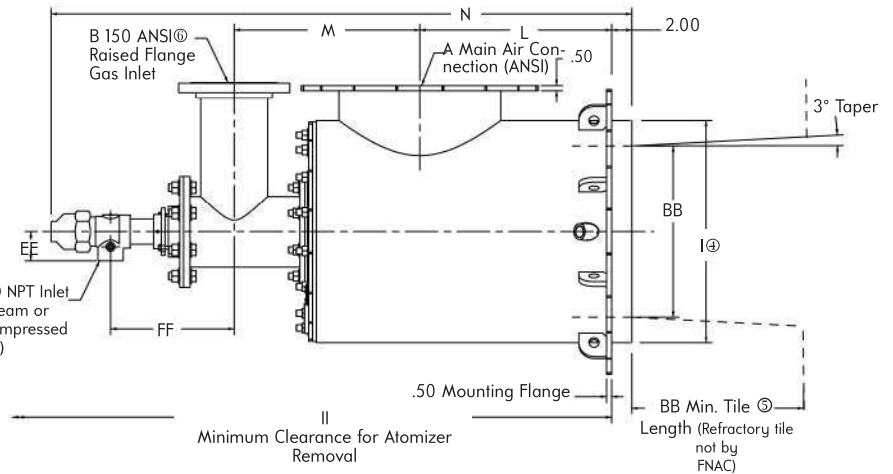
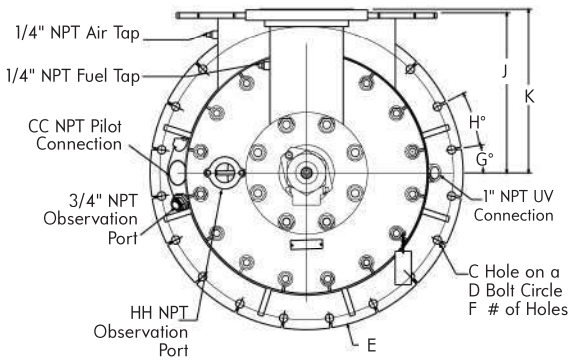
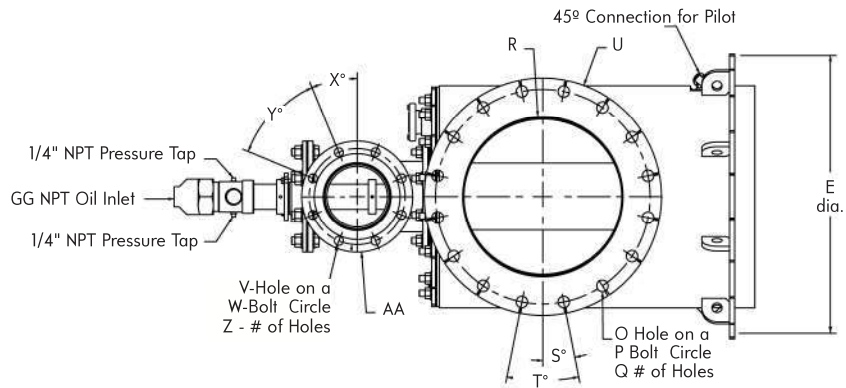
Burner Designation	COMBUSTION AIR CAPACITY, (scfh) for Btu/hr, multiply by 100				FLOW RATE of ATOMIZING MEDIUM for sizing piping only		FLAME DIMENSIONS @ 8 osi main air and 10% XSair. add 10% for heavy oil	
	Air pressure drop across burner, osi				"Maximum" <sup>③</sup> steam flow, lb/hr with 80 psi steam	"Maximum" <sup>③</sup> compr. air, scfm with 80 psi air	Length	Diameter
	1.0	5.0	6.0	8.0 <sup>②</sup>				
6795-10-43	47 500	106 000	116 000	134 000	140	52	11'	4'
6795-12-43	70 000	157 000	172 000	198 000	225	83	15'	5'
6795-14-43	95 500	214 000	234 000	270 000	225	83	20'	5'
6795-16-43	121 000	269 000	295 000	340 000	660	244	25'	5'
6795-18-43	155 000	346 000	380 000	438 000	660	244	30'	6'
6795-20-43	200 000	447 000	490 000	565 000	660	244	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

③ See explanation in the text under "Atomizer".

## DIMENSIONS



see page 3 for dimension chart

# Dimensions | 6795 Magna-Flame™

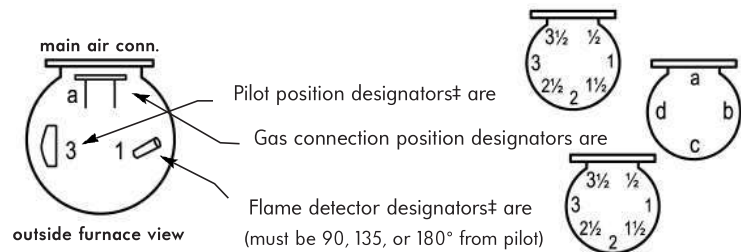
Burner Designation	Dimensions in inches and degrees																		
	A	B	C	D	E	F	G°	H°	I④	J	K	L	M	N	O	P	Q	R	S°
6795-10-43	10	4	0.75	20.5	22.25	16	11.25	22.5	16	11	14.76	12.75	13.07	42.5	1	14.25	12	10.25	15
6795-12-43	12	4	0.75	22.5	24.25	16	11.25	22.5	18	12.5	14.76	15	14.44	46.61	1	17	12	12.25	15
6795-14-43	14	6	0.75	24.5	26.25	16	11.25	22.5	20	13.5	14.81	18	17.39	52.42	1.13	18.75	12	13.88	15
6795-16-43	16	6	0.75	26.5	28.25	20	9	18	22	14.5	14.81	19	18.39	57.51	1.13	21.25	16	15.88	11.25
6795-18-43	18	6	0.75	28.5	30.25	20	9	18	24	15.5	14.81	19.51	18.89	58.51	1.25	22.75	16	17.88	11.25
6795-20-43	20	8	0.88	30.5	32.25	20	9	18	26	16.5	14.01	19.62	21.15	60.58	1.25	25	20	19.88	9

Burner Designation	Dimensions in inches and degrees																Atomizers	Recommended Pilot Assy. Designation	WT
	T°	U	V	W	X°	Y°	Z	AA	BB	CC	DD	EE	FF	GG	HH	II			
6795-10-43	30	16	0.75	7.5	22.5	45	8	9	11	1.5	0.75	1.19	10.56	3/8	3/4	66.25	5643-0	4014-2-T	255
6795-12-43	30	19	0.75	7.5	22.5	45	8	9	12.5	1.5	1	2.19	11.06	1/2	3/4	72.75	5643-1	4014-2-T	310
6795-14-43	30	21	0.88	9.5	22.5	45	8	11	14.75	2	1	2.19	10.94	1/2	3/4	82.50	5643-1	4014-3-AT	405
6795-16-43	22.5	23.5	0.88	9.5	22.5	45	8	11	17	2	1.5	2.88	12.25	3/4	2	86	5643-3	4014-3-AT	505
6795-18-43	22.5	25	0.88	9.5	22.5	45	8	11	19.25	2	1.5	2.88	12.25	3/4	2	88	5643-3	4014-3-AT	550
6795-20-43	18	27.5	0.88	11.75	22.5	45	8	13.5	21.5	2	1.5	2.88	11.94	3/4	2	95	5643-3	4014-3-BT	675

- ④ Furnace opening should be 1/2" larger than dimension I for -10 thru -16, and 3/4" larger than dimension I for -18 and -20.
- © After a length of 1.2 X BB flare out the tile at a 30° angle (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.

Atomizer connections need not be specified because they can be rotated in the field.



‡ 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 6795-16-43); (2) Arrangement designation for pilot, gas connection and flame safety positions in that order such as: 6795-16-43, arrangement 3a1 (for the arrangement shown above).

**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

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# North American 6795 Magna-Flame™ Burners Dual-Fuel

Supplement 6795-2



## FEATURES

- Broad stability range
- Chambers up to 2200°F
- Includes low pressure fuel oil atomizer
- Dual-Fuel burner - gas or oil (light only)
- Conventional forward flame pattern
- 8 to 30 million Btu/hr

**MAGNA-FLAME™ BURNERS FOR LOW PRESSURE AIR ATOMIZATION OF LIGHT OIL.** Features heavy-duty, welded steel body, built-in refractory ring, atomizer, observation port, and connections for pilot and flame detector.

These Magna-Flame burners combine the versatility of smaller Forward Flame Burners, the convenience of large capacity burners, and suitability for modern flame monitoring systems. They have been used in many industrial heating operations, including dryers, reverberatory melters, fluidized bed heaters, air heaters, and fume incinerators.

Sizes up to 16" make these burners convenient to use where multiple small burners would be impractical. The oil flame is more luminous than the gas. All sizes burn distillate oil cleanly and efficiently.

**ATOMIZER.** This burner is equipped with a Series 5654 Low Pressure Air Atomizer. (If high pressure air or steam atomization is desired, see Bulletin 6795.) It requires 14 psi atomizing air pressure for distillate oil. Oil pressure required at the burner is negligible. Main and atomizing air consumption rates are tabulated below.

**CONTROL.** Minimum air pressure when firing correct air/fuel ratio is approximately 1/4 psi. Magna-Flame burners should be used with automatic air/fuel ratio control--either mass flow control or cross-connected pressure control systems. (Regulator, Regutrol, or Ratiotrol™.) Gas pressure required is approximately 0.6 times air pressure.

**IGNITION and FLAME SUPERVISION.** Magna-Flame burners should be pilot ignited ①. Pilot ignition must occur at 1" w.c. 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 North American for configuration guidance on multiple burner applications.

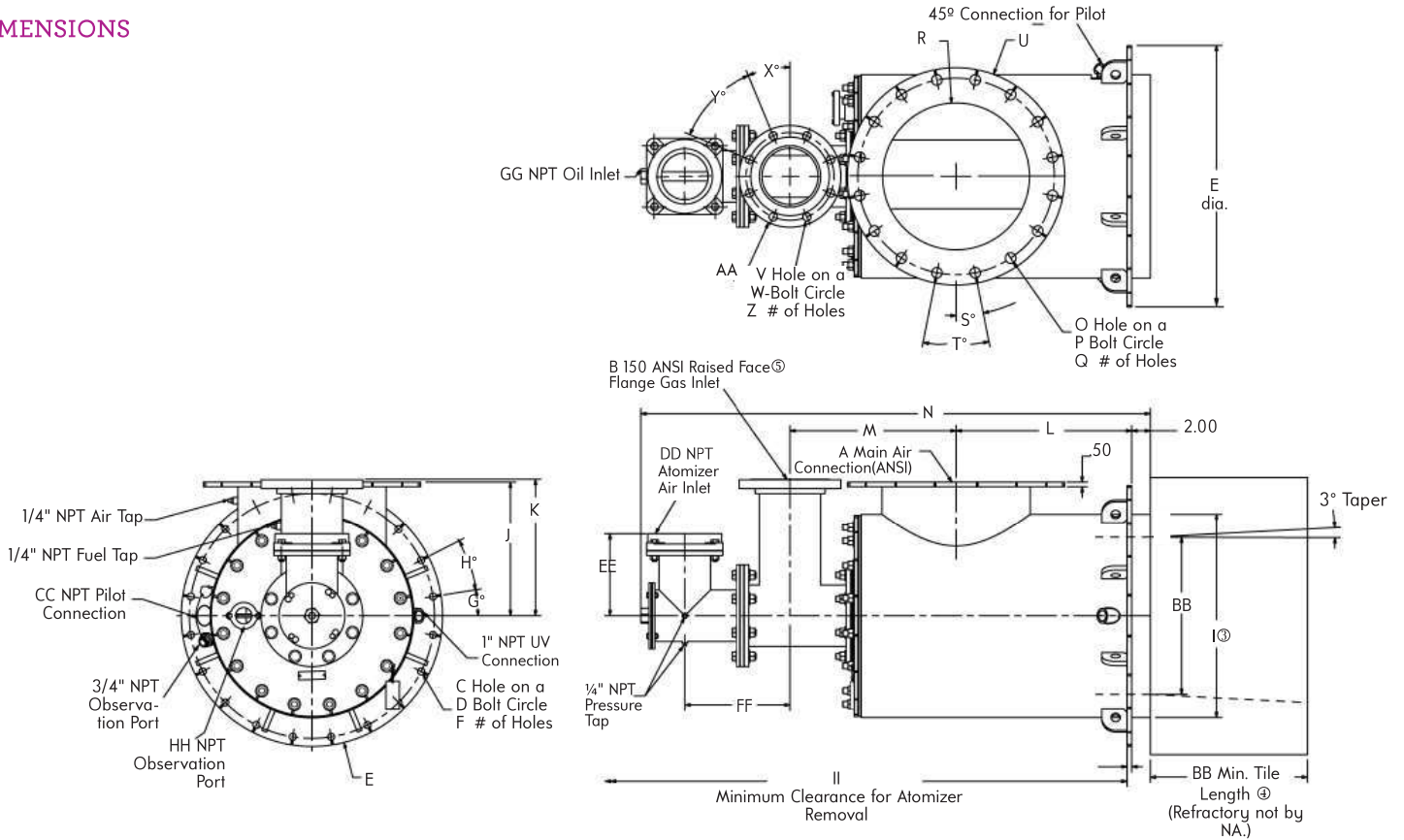
**INSTALLATION.** The burner does not include a refractory tile. The shape shown on the dimension drawing (page 2) must be built into the combustion chamber wall. See Supplement DF-M1 for installation recommendations.

**REPLACEMENT and SPARE PARTS.** NOTE: In June, 2009, the 6795 burner was redesigned to change from a square mounting flange to round and replace the threaded gas connection with a flanged as tee. When replacing burners, or ordering parts, please inform your sales professional of the complete part number, sales order and/or manufactured date. This information is stamped on a tag located on the burner back plate.

Burner Designation	COMBUSTION AIR CAPACITY, (scfh) For Btu/hr, multiply by 100 Air pressure drop across burner, osi				FLOW RATE of ATOMIZING AIR scfh @ 14 osi	FLAME DIMENSIONS @ 8 osi main air & 10% XSair	
	1.0	5.0	6.0	8.0②		Length	Diameter
6795-9-A-54	29 000	65 000	71 000	82 000	6 050	9'	3'
6795-9-B-54	36 000	80 500	88 000	102 000	6 050	9'	3'
6795-10-54	47 500	106 000	116 000	134 000	10 600	11'	4'
6795-12-54	70 000	157 000	172 000	198 000	17 200	15'	5'
6795-14-54	95 500	214 000	234 000	270 000	17 200	20'	5'
6795-16-54	121 000	269 000	295 000	340 000	27 200	25'	5'

① Because of positive pressure.  
② Maximum recommended pressure.

**DIMENSIONS**



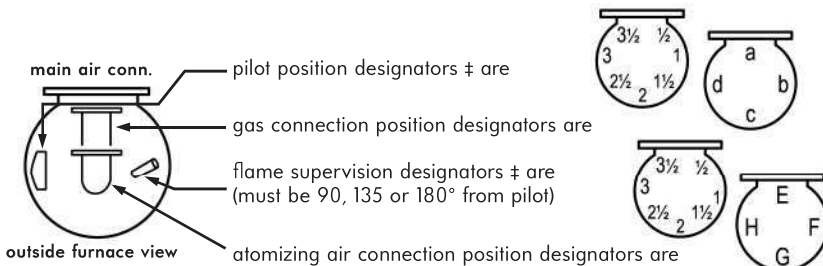
DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

Size Designation	Dimensions in inches and degrees																	
	A	B	C	D	E	F	G°	H°	I③	J	K	L	M	N	O	P	Q	R
6795-9-A, B-54	8	3	0.75	18.5	20.25	16	11.25	22.5	14	9.5	9.26	11	11.7	35.69	0.88	11.75	8	8.25
6795-10-54	10	4	0.75	20.5	22.25	16	11.25	22.5	16	11	14.76	12.75	13.07	42.5	1	14.25	12	10.25
6795-12-54	12	4	0.75	22.5	24.25	16	11.25	22.5	18	12.5	14.81	15	14.44	46.61	1	17	12	12.25
6795-14-54	14	6	0.75	24.5	26.25	16	11.25	22.5	20	13.5	14.81	18	17.39	52.42	1.125	18.75	12	13.88
6795-16-54	16	6	0.75	26.5	28.25	20	9	18	22	14.5	14.81	19	18.39	57.51	1.125	21.25	16	15.875

Size Designation	Dimensions in inches and degrees																	Pilot Assembly	WT
	S°	T°	U	V	W	X°	Y°	Z	AA	BB	CC	DD	EE	FF	GG	HH	II		
6795-9-A, B-54	22.5	45	13.5	0.75	6	45	90	4	7.5	10	1.25	2.5	2.38	7.74	3/8	3/4	61.50	4014-1-T	220
6795-10-54	15	30	16	0.75	7.5	22.5	45	8	9	11	1.5	3	5.19	8.71	3/8	3/4	70.75	4014-2-T	290
6795-12-54	15	30	19	0.75	7.5	22.5	45	8	9	12.5	1.5	4	7.88	11.96	1/2	3/4	81.75	4014-2-T	310
6795-14-54	15	30	21	0.875	9.5	22.5	45	8	11	14.75	2	4	7.88	11.75	1/2	3/4	92.25	4014-3-AT	480
6795-16-54	11.25	22.5	23.5	0.875	9.5	22.5	45	8	11	17	2	6	8.88	11.46	1/2	2	96.75	4014-3-AT	540

③Furnace opening should be 1/2" larger than dimension I.  
 ④After a length of 1.2 X BB, flare out the tile at a 30° angle (60° included angle).  
 ⑤Flat 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, flame supervision and atomizing air** in that order.



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

**ORDER MUST SPECIFY:**(1) Burner designation(such as 6795-16-54); (2) Arrangement designation for pilot, gas connection, flame safety and atomizing air connection positons in that order such as 6795-16-54, arrangement 3a1E (for the arrangement shown above).

**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.

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Industry can do it





## North American Burners Oil and Dual-Fuel Wide Flame



### 6796 Magna-Flame™ Dual-Fuel Burners

- For furnaces, boilers, air heaters, incinerators, gypsum kettles, etc.
- Short and wide flame pattern
- Dual-Fuel burner, gas or oil (light or heavy grade oil)
- 18 to 75 million Btu/h HHV

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# Product Overview | 6796 Magna-Flame™

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## FEATURES

- **Broad stability range**
- **Chambers up to 2200°F**
- **Includes high pressure tip emulsion atomizer**

**6796 MAGNA-FLAME™ DUAL FUEL BURNERS** use high pressure atomization (70 to 100 psi steam or compressed air), and are designed to fire combustion chambers of limited length but with sufficient width to allow the flame envelope to develop. They are well suited to cubic combustion chambers typical of coal-fired water tube boilers.

**ATOMIZER.** Series 6796 burners incorporate an efficient 5646 tip-emulsion atomizer that can be used with #2 or #6 oil (heated to reduce its viscosity to 100 SSU). The burner may be operated on oil or gas. The atomizer should be retracted (6") during gas only operation. Adjustable external and internal stops on the atomizer, as well as a packing gland, allow repositioning the atomizer to its exact predetermined location for oil firing.

"Maximum" steam and compressed air consumption rates shown below are with no oil flowing. Actual usage will always be less--from 1.5 to 2.8 pounds of steam (or 34 to 63 scf air) per gallon of oil, depending on the quantity of oil being atomized. (Use figures shown below to size piping--not to determine cost of the atomizing medium.)

**IGNITION and FLAME SUPERVISION.** Magna-Flame Burners should be pilot ignited. The 4014 gas-boosted pilot (sold separately) listed in the dimension table is required, and provision must be made for low fire start with 1.0" w.c. or less main air. Pilot operation must be interrupted to prevent overheating of the mounting. The UV detector location should be 90° clockwise of the pilot when viewing rear of burner (in the direction of air swirl). 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 Combustion, Inc. for configuration guidance on multiple burner applications. On burners using steam atomization, the UV detector on the burner will pick up only the pilot. An additional detector must be mounted on the side of the furnace to sight on the base of the main flame. Check with North American for additional details.

**CONTROL.** If atomizing steam is throttled along with oil and air, 5 to 1 turndown from 8 psi high fire air rate is obtainable. If steam pressure is left constant, only about 3 to 1 turndown is obtainable, and steam pressure must be reduced for low fire lighting.

Gas pressure required is approximately 0.6 times the air pressure. Maximum excess air rates of 50% at low fire and 150% at high fire are suggested, although proper conditions may permit exceeding these limits.

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

**REPLACEMENT AND SPARE PARTS. NOTE: In June, 2009, the 6796 burner was redesigned to change from a square mounting flange to round and replace the threaded gas connection with a flanged gas tee. When replacing burners, or ordering parts, please inform your sales professional of the complete part number, sales order and/or manufactured date. This information is stamped on a tag located on the burner back plate.**

# Capacity, Dimensions | 6796 Magna-Flame™

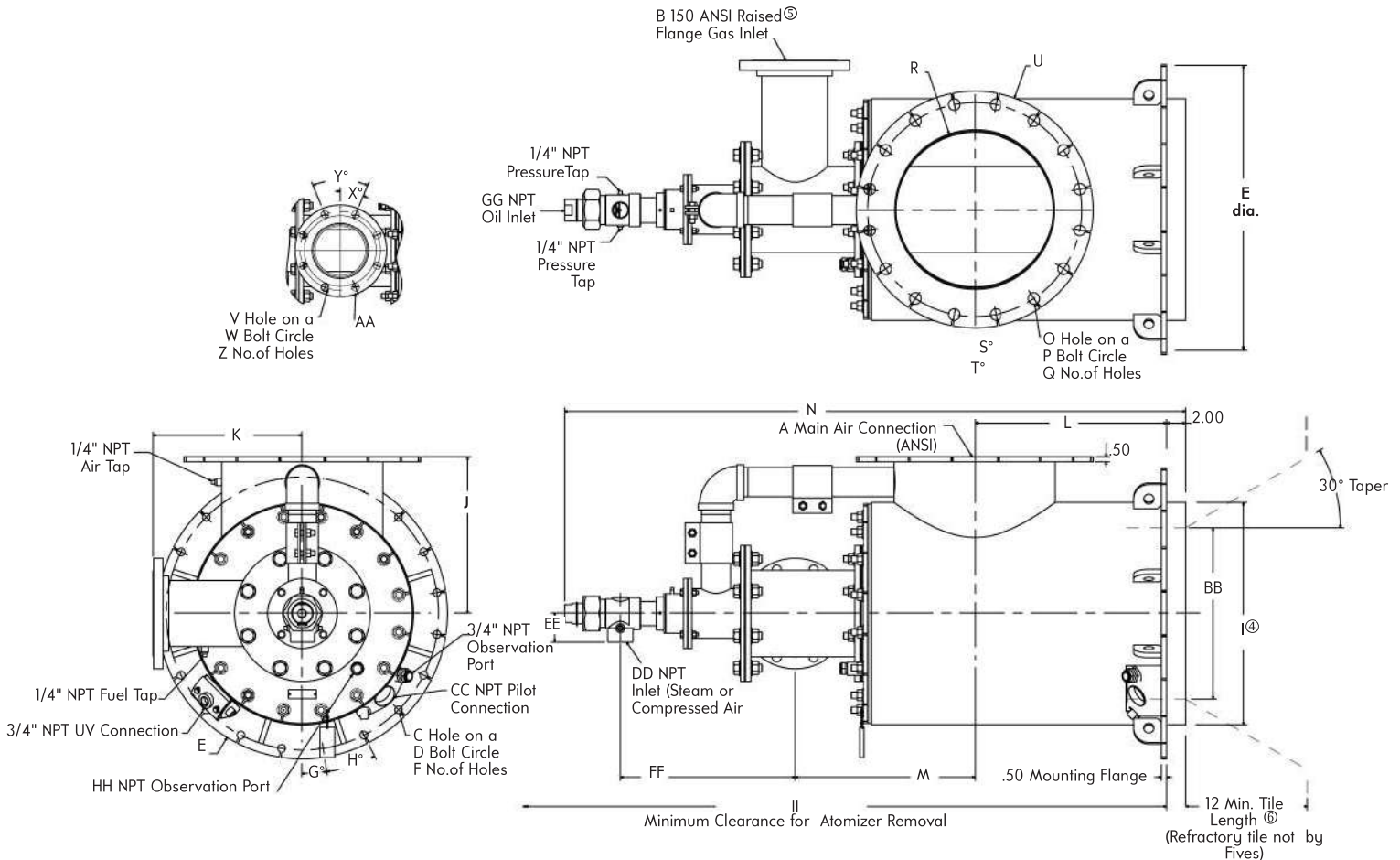
Burner designation	COMBUSTION AIR CAPACITY, (scfh) For Btu/hr, multiply by 100				FLOW RATE of ATOMIZING MEDIUM For sizing piping only		FLAME DIMENSIONS @ 8 osi main air and 10% XSair Add 10% for heavy oil	
	Air pressure drop across burner, osi				"Maximum" <sup>③</sup> steam flow, lb/hr with 80 psi steam	"Maximum" <sup>③</sup> compr. air, scfm with 80 psi air	Length	Diameter
	1.0	5.0	6.0	8.0 <sup>②</sup>				
6796-12-46	67 000	150 000	164 000	190 000	300	111	6'	5'
6796-14-46	86 000	193 000	211 000	244 000	425	157	7'	6'
6796-16-46	120 000	269 000	295 000	340 000	550	204	7 ½'	6'
6796-18-46	155 000	346 000	380 000	438 000	700	260	8'	6'
6796-20-46	200 000	447 000	490 000	565 000	900	333	9'	7'
6796-22-46	237 000	530 000	580 000	670 000	1100	407	9 ½'	8'
6796-24-46	282 000	630 000	690 000	795 000	1300	480	10'	8'

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

③ See explanation in the text under "Atomizer".

## DIMENSIONS



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

# Dimensions | 6796 Magna-Flame™

Burner Designation	Dimensions in Inches and Degrees																			
	A	B	C	D	E	F	G°	H°	I <sup>④</sup>	J	K	L	M	N	O	P	Q	R	S°	T°
6796-12-46	12	4	0.75	24.25	26	16	11.25	22.5	18	14	14.75	15	14.56	53.63	1.00	17	12	12.25	15	30
6796-14-46	14	6	0.75	25.25	27	16	11.25	22.5	20	14.5	14.75	18	15.75	57.88	1.13	18.75	12	13.88	15	30
6796-16-46	16	6	0.75	27	28.75	20	9	18	22	15.5	14.81	19	17.88	61.75	1.13	21.25	16	15.88	11.25	22.5
6796-18-46	18	6	0.75	29	30.75	20	9	18	24	16.5	14.81	19.5	18.25	62.38	1.25	22.75	16	17.88	11.25	22.5
6796-20-46	20	8	0.88	31	32.75	20	9	18	26	18.5	14	20	20.75	66.63	1.25	25	20	19.88	9	18
6796-22-46	22	8	0.88	33.5	35.25	20	9	18	28	19.5	14	21	21.88	70.50	1.25	26	20	21.88	9	18
6796-24-46	24	8	0.88	35.5	37.75	24	7.5	15	30	20.5	14	22	22.88	72.13	1.38	29.5	20	23.88	9	18

Burner Designation	Arrangement Designators															Atomizer Designation	Pilot Assy. Designation	Weight lbs.
	U	V	W	X°	Y°	Z	AA	BB	CC	DD	EE	FF	GG	HH	II			
6796-12-46	19.0	0.75	7.50	22.5	45	8	9	12.5	1.5	1.00	3.06	17.12	½	¾	94.00	5646-1-110	4014-2-T	430
6796-14-46	21.0	0.88	9.50	22.5	45	8	11	14.75	2.0	1.25	2.50	17.12	½	¾	94.25	5646-2-150	4014-3-AT	485
6796-16-46	23.5	0.88	9.50	22.5	45	8	11	17	2.0	1.25	2.88	17.31	¾	2	100.75	5646-2-195	4014-3-AT	585
6796-18-46	25.0	0.88	9.50	22.5	45	8	11	19.25	2.0	1.50	2.88	17.12	¾	2	102.75	5646-3-250	4014-3-AT	625
6796-20-46	27.5	0.88	11.75	22.5	45	8	13.5	21.5	2.0	1.50	2.88	18.31	¾	2	111.50	5646-3-320	4014-3-BT	730
6796-22-46	29.5	0.88	11.75	22.5	45	8	13.5	24	2.0	1.50	2.88	20.06	¾	2	115.25	5646-3-380	4014-3-BT	820
6796-24-46	32.0	0.88	11.75	22.5	45	8	13.5	26	2.0	1.50	2.88	19.69	¾	2	119.75	5646-3-450	4014-3-BT	880

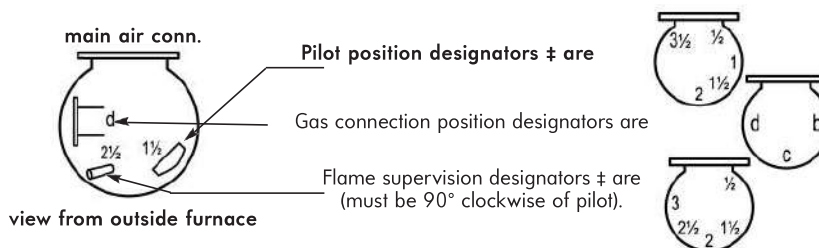
④ Furnace opening should be ½" larger than dimension I for sizes -12 through -16 and ¾" larger than dimension I for sizes -18 through -24.

⑤ Flat face companion ANSI flange available upon request.

⑥ For tiles longer than 15" consult North American.

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

Atomizer connections need not be specified because they can be rotated in the field.



‡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 6796-16-46); (2) Arrangement designation for pilot, gas and flame safety positions in that order such as: 6796-16-46, arrangement 1½ d 2½ (for the arrangement shown above).

**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

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## Summary of North American Magna-Flame™ and Hot Air Burners

Sheet 6800-2

Burner Model	Air temp.		Fuels			Atomizer type				Flame Type	Capacity range (in millions of Btu)
	Cold	Hot	Gas	#2 Oil	#6 Oil	Low Pr.	Model	High Pr.	Model		
4211	✓		✓								1 to 255
6211	✓		✓	✓				✓	5643/46		1 to 255
4213 <sup>②</sup>	✓		✓								1 to 175
6213 <sup>②</sup>	✓		✓	✓				✓	5643/46		1 to 175
4795	✓		✓							A	8 to 56
6795 <sup>③</sup>	✓		✓	✓	✓ <sup>①</sup>	✓	5654	✓	5642/43	A	8 to 56
4796	✓		✓							C	16 to 79
6796	✓		✓	✓	✓			✓	5646	C	16 to 79
6818 <sup>④⑥</sup>		✓	✓	✓		✓	5654			A/C	
4819 <sup>⑥</sup>		✓	✓							A	1 to 30
5819 <sup>⑥</sup>		✓		✓	✓			✓	5642	A	1 to 30
6819 <sup>⑥</sup>		✓	✓	✓	✓			✓	5642	A	1 to 30
4820 <sup>⑥</sup>		✓	✓							A	2 to 31
6820 <sup>⑥</sup>		✓	✓	✓	✓	✓	5654	✓	5642/43	A	2 to 31
4821		✓	✓							A	4 to 26
6821		✓	✓	✓	✓	✓	5654			A	4 to 26
4821R <sup>⑤</sup>		✓	✓							H	4 to 26
6821R		✓	✓	✓		✓	5654			H	4 to 26
4825		✓	✓							A	0.14 to 2.8
6825		✓	✓	✓		✓				A	0.16 to 2.5

- ① #6 oil only when high pressure atomizer is used.
- ② Excess air (>50%) burner for dryers and air heaters.
- ③ Capacity dependent on atomizer type.
- ④ Variable flame shape.
- ⑤ Ultra low NOx version available as 4821LNI.
- ⑥ Inactive product - See product manager

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