

**TEMPEST III BURNERS FEATURE:**

**HIGH VELOCITY**—Comparable to North American’s renowned 4442 Tempest I gas burner.

**DUAL-FUEL**—Natural gas and/or distillate oil only. Not suitable for blends containing residuals such as Indian "LDO" or similar.

**WIDE STABILITY RANGE**—From 15% excess fuel to 400% excess air.

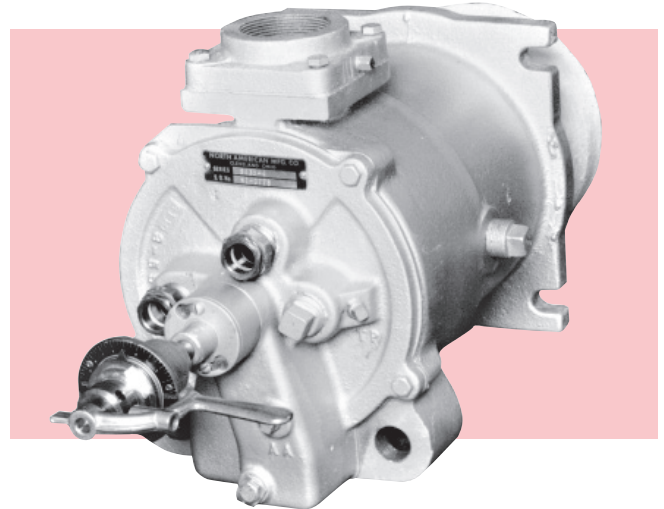
**UNIT CONSTRUCTION**—The high temperature tile is secured in the main body section—no extra support is required.

**USEFUL CAPACITY RANGES**—Ratings from 130 000 to 1 600 000 Btu/hr.

**EASY INSPECTION/SERVICE**—Air and gas piping need not be removed for complete access to internals.

**PREHEATED AIR CAPABILITY**—To 800 F main air temperature at the burner.

**FUEL PRESSURES**—Natural gas - 12 osig, #2 oil - 2.5 psig.



**6435 Burner**

**TABLE 1. Main and Atomizing Air capacities scfh\***  
 (for Btu/hr, multiply by 100)

Burner	fuel	Main Air					Atomizing Air (with 16 osi Main Air)		Flame lengths 16 osi Main Air
		0.2	1	4	9	16	8 osi (gas)	30 osi (oil)	
6435-1	gas	65	240	545	870	1220	75	180	9"
	oil	85	232	545	865	1200			
6435-2	gas	170	500	1090	1660	2280	30	140	8"
	oil	165	430	1070	1660	2280			
6435-3	gas	235	680	1530	2490	3420	70	180	12"
	oil	300	665	1430	2320	3180			
6435-4	gas	545	1270	2830	4350	6050	160	390	20"
	oil	665	1240	2750	4310	5850			
6435-5	gas	895	2060	4460	6950	9500	400 @ 16 osi	585	22"
	oil	895	2110	4760	7450	10000			
6435-6	gas	1000	3500	7100	11300	15200	380 @ 16 osi	470	38"
	oil	1200	3600	7400	11200	15000			

\*burning on stoichiometric ratio

**TABLE 2. Main and Atomizing Air capacities not burning**  
 (use to size blowers)

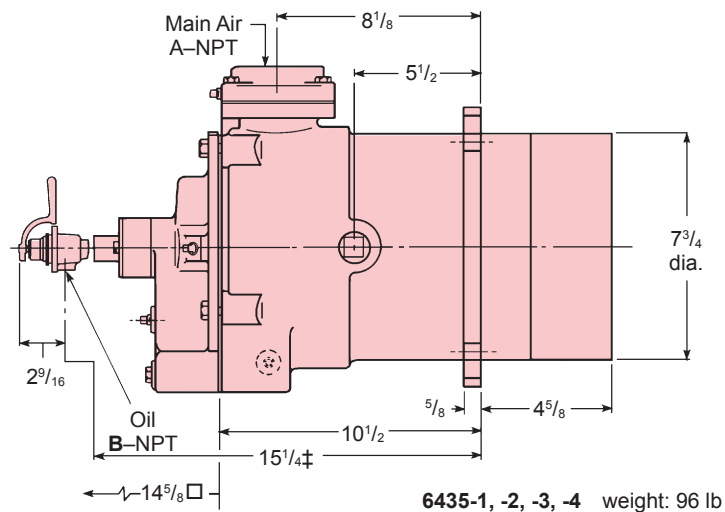
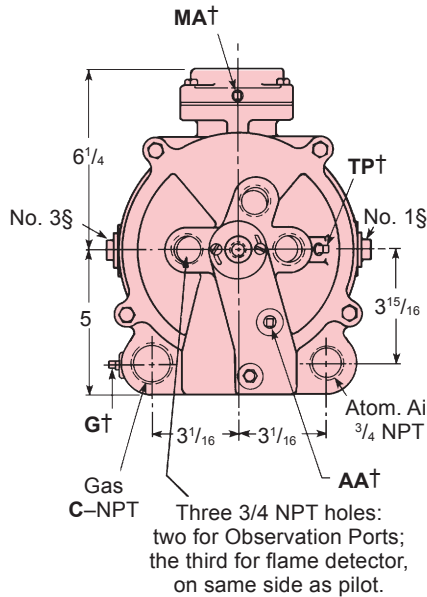
Burner	Main Air at 16 osi	Atomizing Air (with 16 osi Main Air)	
		at 8 osi	at 30 osi
6435-1	1350	90	180
6435-2	3000	90	190
6435-3	4120	100	200
6435-4	7240	240	460
6435-5	12100	430 @ 16 osi	590
6435-6	17500	430 @ 16 osi	590

**TABLE 3. Maximum %XSAir (16 osi Main Air)**

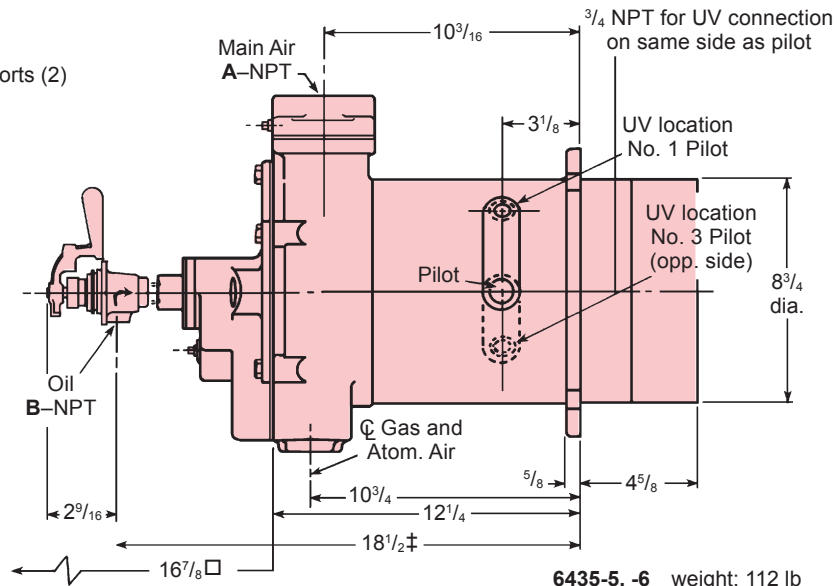
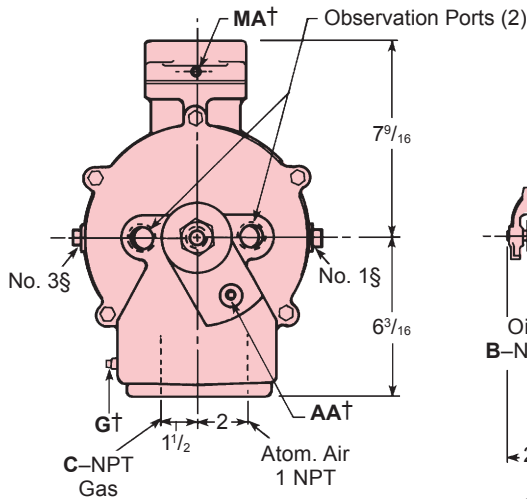
Fuel	Burner size					
	-1	-2	-3	-4	-5	-6
Natural Gas	400	400	400	350	350	600
#2 Oil	200	300	400	300	350	600

# DIMENSIONS

in inches



6435-1, -2, -3, -4 weight: 96 lb



6435-5, -6 weight: 112 lb

Recommended Pilot Tip 4021-12.

‡ Dimension assumes close nipple between burner and Sensitrol™ Oil Valve.

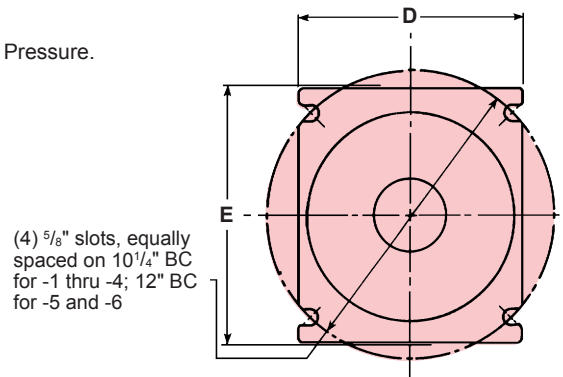
For sizes -1 through -4 with flame supervision, Sensitrol Valve cannot be close connected because of interference with handle.

§ Pilot position designation (No. 1 or No. 3) must be specified on order.

□ Minimum for removal of internals including Sensitrol Valve.

† 1/8 fpt Pressure Taps: MA—Main Air, G—Gas, AA—Atomizing Air, TP—Tile Pressure.

6435	A	B	C	D	E	tile exit hole diameter	Sensitrol Oil Valve
-1	1	1/4	1	8 3/8	9 1/8	1 9/64	1813-03
-2	1 1/4	1/4	1	8 3/8	9 1/8	1 1/4	1813-03
-3	1 1/2	1/4	1	8 3/8	9 1/8	1 1/2	1813-03
-4	2	3/8	1	8 3/8	9 1/8	1 15/16	1813-02-A
-5	2 1/2	3/8	1 1/4	9 1/2	10 3/4	2 1/2	1813-02-A
-6	3	3/8	1 1/2	9 1/2	10 3/4	3	1813-02-B



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.

**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.

Fives North American Combustion, Inc., 4455 East 71st Street, Cleveland, OH 44105-5600 USA, Phone 216-271-6000,  
Facsimile 216-641-7852 E-mail: fna.sales@fivesgroup.com • www.fivesgroup.com/fivesna