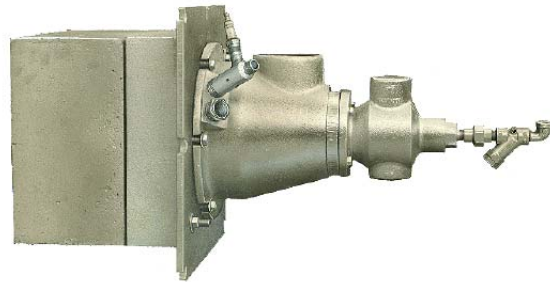


## 1430 SERIES – HOT OR COLD AIR ULTRA LOW NO<sub>x</sub> BAFFLE BURNER

### CAPABILITIES

- High or low temperature furnaces
- High excess air 800% or more
- Ratio or tempered flame operation
- Suitable for fiber or dense refractory wall construction
- Gas only burner readily converted to dual fuel burner



### FEATURES

- Refractory baffle design
  - provides positive flame stabilization
  - shields burner internals from furnace temperature
- Extra rugged port block and mounting plate construction
  - high alumina blocks
  - thicker block refractory
  - cast metal mounting plate with integral port container
  - hook bolt anchor system
  - simplified mounting requirements
- Heat resistant gas nozzle
- Cast body construction
- Integral fuel orifices

### CONTROL

- Cross Connected Regulator
- Metered Flow

### FLAME MONITORING

- U.V. Detector
- Flame Rod

### APPLICATIONS

- Car Type Heat Furnaces
- Forge Furnaces
- Plate Heat Treat Furnaces
- Roller Hearths
- Ceramic Kilns
- Continuous Strip Lines and Reheat Furnaces
- Tundish and Ladle Preheat Drying
- Batch Heat Treating and Annealing
- Ladle and Tundish Heating and Drying

### BURNER IGNITION

- Pilot
- Direct Spark

### FUEL CAPABILITIES

- Natural Gas
- Coke Oven Gas
- Propane/Air Mixture
- Producer Gas
- Mixture of Blast Furnace Gas and a richer gas having a minimum heating value of 250 Btu/cubic foot (2300 kcal/m<sup>3</sup>)

### OPTIONS

- Light or heavy oil versions
- Air Lance
- Tile Lengths

**CAUTION:** The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

## 1430 SERIES – HOT OR COLD AIR ULTRA LOW NO<sub>x</sub> BAFFLE BURNER

### MAXIMUM CAPACITIES

Catalog No. 1430-	100°F (38°C) Combustion Air					800°F (427°C) Combustion Air					Pilot at 4" wc (9.95 mbar)
	Capacity MM Btu/hr	Air Flow		Air Pressure		Capacity MM btu/hr	Air Flow		Air Pressure		
		scfh	Nm <sup>3</sup> /hr	" wc	mbar		scfh	Nm <sup>3</sup> /hr	" wc	mbar	
<b>020</b>	0.315	3,465	92.90	6.8	16.92	0.315	3,465	92.90	13.5	33.58	010
<b>025</b>	0.506	5,565	149.20	5.9	14.68	0.506	5,565	149.20	13.3	33.08	010
<b>030B</b>	0.550	6,050	162.20	5.5	13.68	0.550	6,050	162.20	12.4	30.85	010
<b>030A</b>	0.710	7,810	209.38	5.5	13.68	0.710	7,810	209.38	12.4	30.85	010
<b>035</b>	0.947	10,417	279.28	5.6	13.93	0.947	10,417	279.28	12.6	31.34	010
<b>040</b>	1.300	14,300	383.38	5.7	14.18	1.300	14,300	383.38	12.9	32.09	020
<b>045</b>	2.000	22,000	589.81	6.8	16.92	2.000	22,000	589.81	15.5	38.56	020

### FLAME SIZES

Catalog No. 1430-	Capacity MM Btu/hr	100°F (38°C) Air 10% Excess	800°F (427°C) Air 10% Excess
<b>020</b>	0.28	30" x 12"	28" x 12"
<b>025</b>	0.45	36" x 14"	33" x 14"
<b>030B</b>	0.52	39" x 15"	35" x 15"
<b>030A</b>	0.67	44" x 17"	39" x 17"
<b>035</b>	0.98	52" x 20"	45" x 20"
<b>040</b>	1.20	60" x 33"	50" x 24"
<b>045</b>	1.60	72" x 28"	66" x 28"

The small capacity low NO<sub>x</sub> 1430 Burner Series utilizes Bloom's refractory baffle for flame stabilization. The baffle design induces furnace products of combustion back into the burner port. Port geometry and mixing velocities control the amount of induced flue gas to maintain flame stability, proper heat release and reduced NO<sub>x</sub>. The excellent flame stability allows operation with exhaust gas recirculation to reduce NO<sub>x</sub> further. By shielding the burner internals from flame and furnace radiation, the baffle minimizes maintenance. The burner port block is a high alumina refractory with an iron alloy mounting plate.

Six or nine inch port blocks are standard. The unlined burner body with heat resistant alloy iron is suitable for air temperatures up to 1000°F (538°C). For air temperatures greater than 1000°F (538°C), special designs are available.

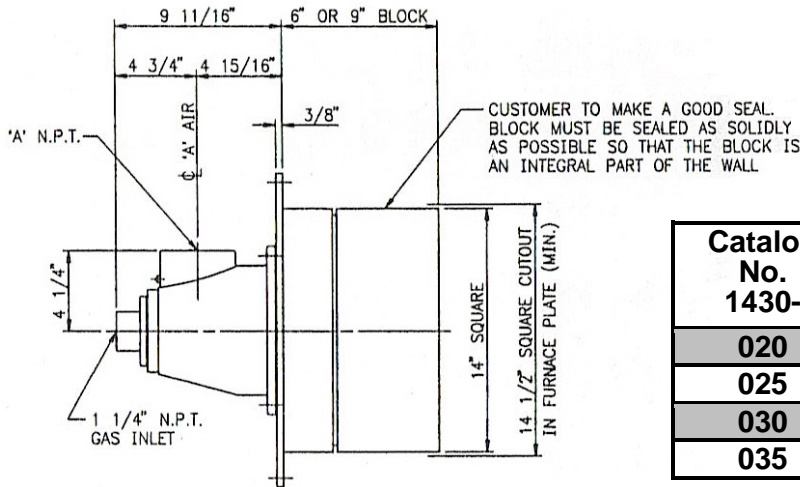
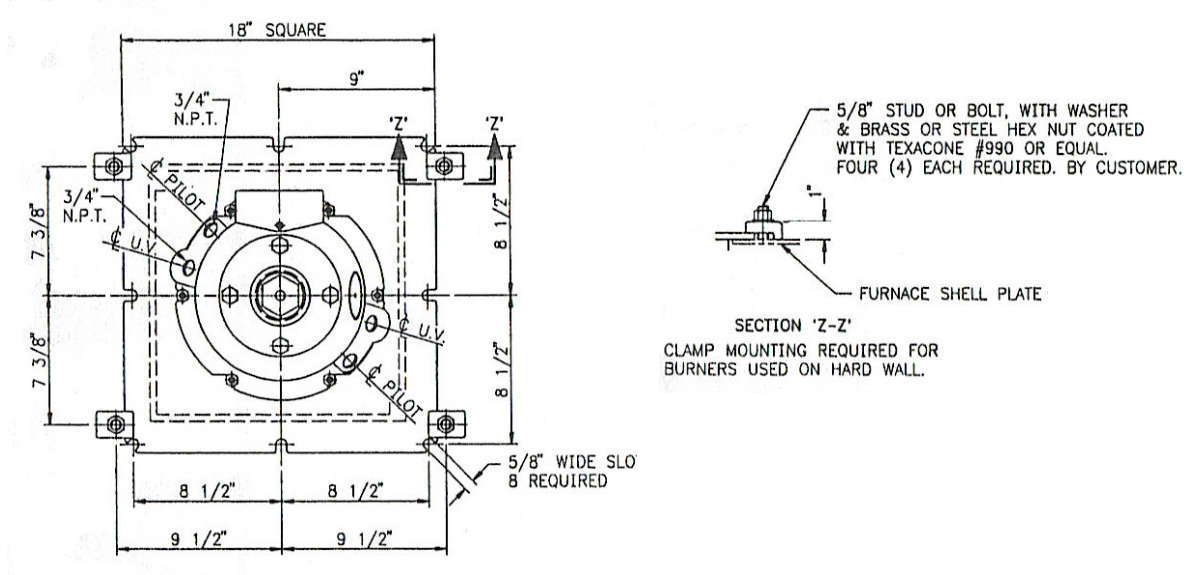
Each burner has a machined integral gas distribution orifice eliminating the need for individual gas balancing or throttle valves ensuring even distribution throughout a given zone with approximately sized piping. Turndown lances and momentum jets are available options.

The 1430 Series Burners are suitable for operation with continuous, intermittent or interruptible pilots utilizing UV monitoring. The use of flame rods for main flame monitoring is not recommended. Direct spark or manual ignition is also available. The 1430 Series Burners operate from stoichiometric to oxidizing firing. Pressure balance ratio regulator systems or volumetric fuel/air ratio control systems can be utilized.

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# 1430 SERIES – HOT OR COLD AIR ULTRA LOW NO<sub>x</sub> BAFFLE BURNER

## GENERAL DIMENSIONS -020 THRU -035



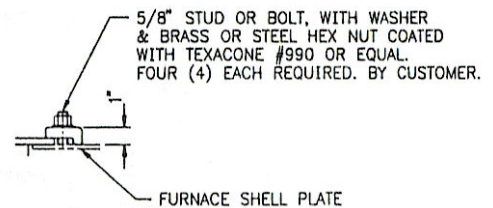
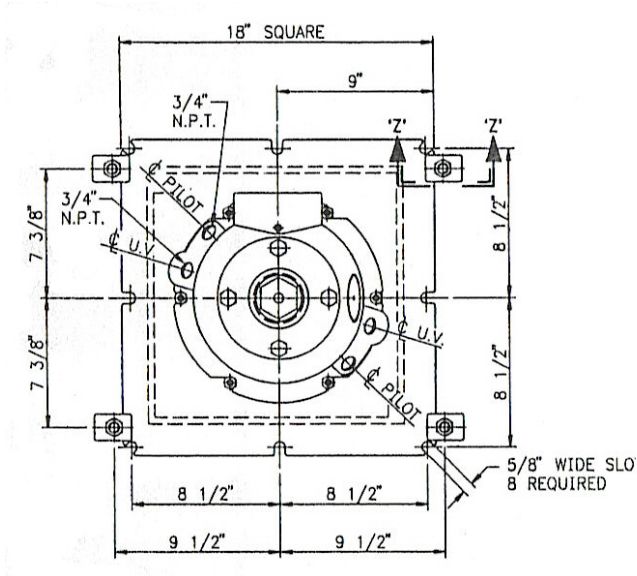
Catalog No. 1430-	"A"	Shipping Weight	
		lbs	kg
020	2	220	100
025	2 1/2	220	100
030	3	220	100
035	3	220	100

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

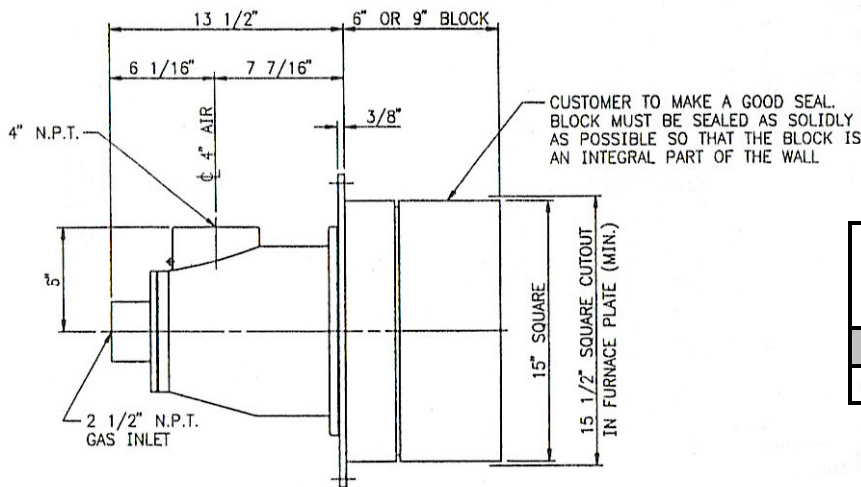
CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

# 1430 SERIES – HOT OR COLD AIR ULTRA LOW NO<sub>x</sub> BAFFLE BURNER

## GENERAL DIMENSIONS -040 THRU -045



SECTION 'Z-Z'  
CLAMP MOUNTING REQUIRED FOR  
BURNERS USED ON HARD WALL.



Catalog No. 1430-	Shipping Weight	
	lbs	kg
040	220	100
045	220	100

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

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