BLOOM ENGINEERING

2400 SERIES
BPC240025

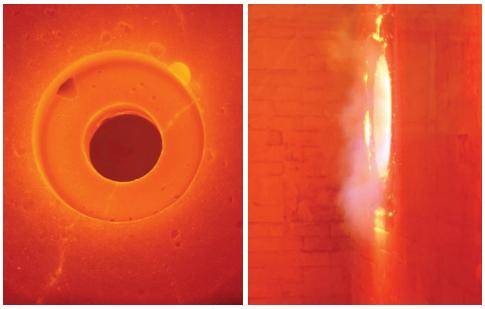
Regenerative High Thermal Release (HTR®) Burner

APPLICATIONS:
- Reheat Furnace
- Batch Anneal Furnace
- Forging Furnace
- Many Other Applications

FEATURES:
- Proprietary Stabilization Principle high-temperature radiation through high speed combustion
- Extra rugged port block and mounting plate construction
- More energy efficient than cold air or hot air flat flame burners

CAPABILITIES:
- High Thermal Release
- High temperature radiation without flame impingement
- Ability to place heat where required
- Nominal capacity range:
  1.0 MMBtu/hr (250 kCal/hr) to
  4.0 MMBtu/hr (1,000 kCal/hr)

** Special capacity and special fuels design by request.*



NOTE: Due to continual developments in the Bloom Laboratory and results from field research, the applicability of different fuels and other options listed above are constantly being updated. Please consult a Bloom Representative to inquire about the availability of any guidelines/options that are not shown above.

FUEL CAPABILITIES*
Natural Gas \ LP Gas \ Coke Oven Gas
**Please Consult a Bloom Representative for availability of other fuel types*

BURNER IGNITION
Pilot (recommended)

CONTROLS
Pressure Balance Ratio Regulator \ Volumetric Fuel/Air Ratio

FLAME MONITORING
Provisions for Flame Monitoring

OPTIONS
Custom Engineered Designs for Special Applications

T +1 412-653-3500 | info@bloomeng.com | bloomeng.com | 100 Vista Drive | Charleroi, PA 15022 USA

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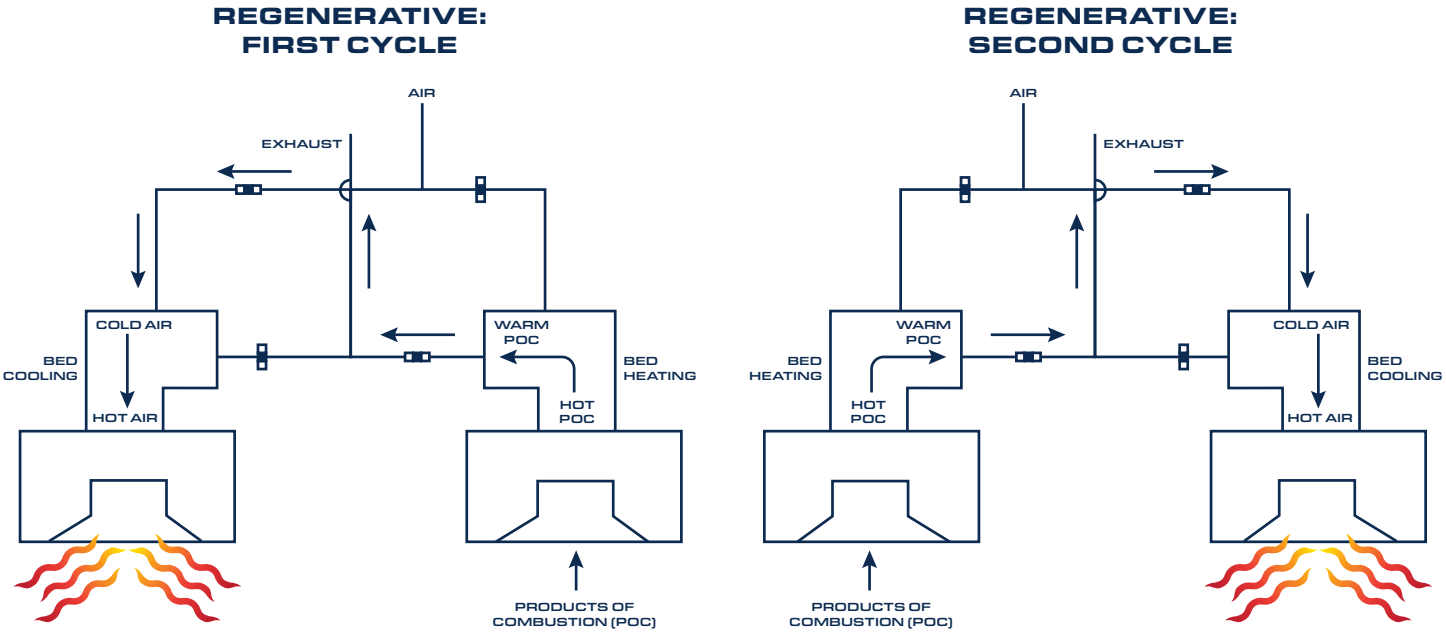
TABLE 1 - Performance and Selection Chart at Nominal Capacity			
Burner Designation[1] 2400 - ___	Nominal Capacity Air Pressure required @ nominal rating = 8" w.c. Gas pressure required @ nominal rating = 2"w.c		Pilot Part Number
	MMBtu/hr	MKcal/hr	
-010	1.0	250	3001-030
-015	1.5	375	3001-030
-020	2.0	500	3001-050
-025	2.5	625	3001-050
-030	3.0	750	3001-050
-040	4.0	1,000	3001-050

[1]Burner designation corresponds to approximate burner rating in MMBtu/hr (e.g. 2400-020 --> 2 MMBtu/hr)

FIGURE 1 - Operating Sequence for Regenerative Burners



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

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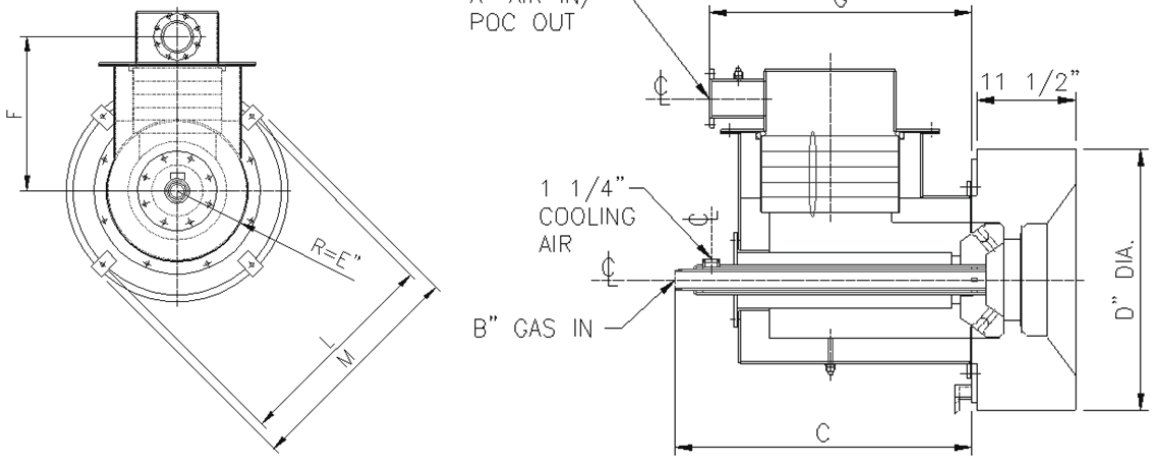

TABLE 2 - Burner Dimensions in Inches for Burner Size 2400-010 & 2400-015

Burner Designation 2400 - ___	A	B	C	D		E	F	G	L	M
				Diameter	Square					
-010	4	2	34 5/8	30 1/2	-	9 3/4	21 1/8	30 5/8	28 7/8	31 3/8
-015	4	2	34 5/8	30 1/2	-	9 3/4	21 1/8	30 5/8	28 7/8	31 3/8

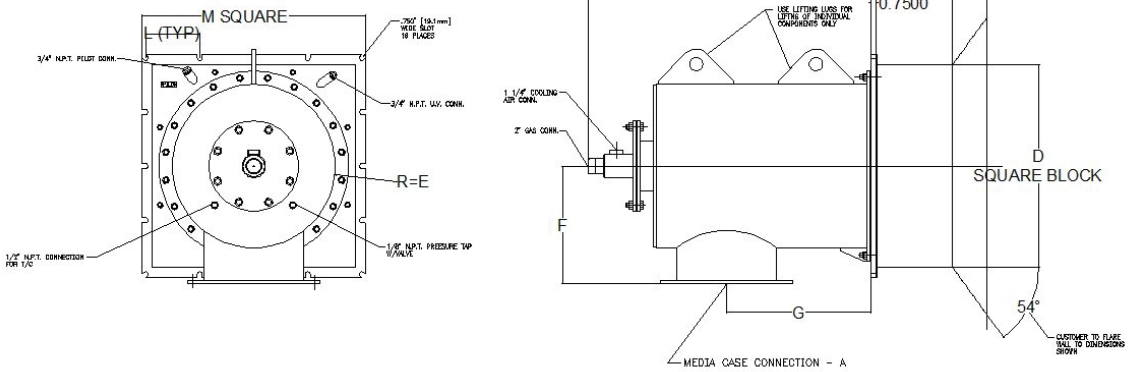

TABLE 3 - Burner Dimensions in Inches for Burner Size 2400-020 thru 2400-040

Burner Designation 2400 - ___	A	B	C	D		E	F	G	L	M
				Diameter	Square					
-020	6	2	43 1/4	-	30 1/2	12 1/4	17 5/8	21 3/4	8 1/8	33 1/2
-025	6	2	43 1/4	-	30 1/2	12 1/4	17 5/8	21 3/4	8 1/8	33 1/2
-030	6	2	43 1/4	-	30 1/2	12 1/4	17 5/8	21 3/4	8 1/8	33 1/2
-040	8	2	44 3/4	-	30 1/2	12 1/4	17 5/8	23 1/4	8 1/8	33 1/2

NOTE: General Dimension Information. Please consult a Bloom Representative for dimensions on larger sizes and certified dimensions for construction

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To REQUEST A QUOTE: Please Contact your local representative at www.bloomeng.com/contact and provide the following information:

INFORMATION	UNITS
General Information:	
Application	
Burner Input	(MMBtu/hr; kcal/hr; kW) in (HHV or LHV)
Quantity of Burners	
Ignition Type and Fuel	
Main Fuel Information:	
Fuel (s) and Heating Value (s)	(Btu/ft3; kcal/Nm3; MJ/Nm3) in (HHV or LHV)
Fuel Flow	(scfh; Nm3/hr)
Available Fuel Pressure	("w.c.; psi; mbar; kPa)
Fuel Constituents	
Combustion Air Information:	
Combustion Air Temperature	(˚F; ˚C)
Combustion Air Pressure Available	("w.c.; psi; osi; mbar; kPa)
Minimum / Maximum Excess Air Required	(%)
Flame Information:	
Desired Flame Length	(feet; inches; m; mm)
Desired Flame Diameter	(feet; inches; m; mm)
Furnace / Combustion Chamber Information:	
Wall Thickness	(feet; inches; m; mm)
Burner Assembly / Connection Requirements	
Furnace / Chamber Dimensions or Drawings for Emissions estimate	
POC (Products of Combustion) / Furnace Temperature	(˚F; ˚C)
Other Information:	
Operational / Control Requirements (i.e. Turndown, Control Type)	
Emissions Requirements (NOx, CO)	
Chamber Backpressure	
Oil / Atomizing Agent Details	
Any other special requirements	

**** NOTE: Information required to process a quote includes, but may not be limited to, the information specified above. Additional details may ALSO be required to quote a combustion control system.***

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

BLOOM ENGINEERING

AFTERMARKET REPAIR AND REBUILD PROGRAM

Extend the life of your burners and valves with Bloom Engineering's Aftermarket Repair and Rebuild Service Program

Our aftermarket Repair and Rebuild Service Program delivers the same high-quality Bloom Engineering products at a significant fraction of the cost of new equipment. All of our repairs and rebuilds include an additional one year of warranty coverage. Simply follow the steps below to get started.

CONTACT BLOOM ENGINEERING

Email **orders@bloomeng.com** for your Return Material Authorization (RMA) number. Please provide a brief item description, the part number, quantity, and/or the original order number(s) of the items being returned.

RETURN YOUR PRODUCT

After an RMA number has been provided, please ship items **PREPAID** to:

Bloom Engineering Company, Inc.
100 Vista Drive
Charleroi, PA 15022
Attention: REPAIR PROGRAM
MK: RMA# _____ (see step 1 above)

TO AVOID DELAYS IN PROCESSING YOUR RETURN, YOU MUST INCLUDE YOUR RMA NUMBER WHEN YOU SHIP!

SHIPPING NOTES:

- To ensure the safety of our material handler, please be sure items are securely packaged on a pallet using metal bands.
- Any products unable to be safely unloaded will be returned to the sender.
- Bloom Engineering's receiving hours are M-F 7am-3pm.
- All valves must be cleaned of debris before shipment.
- Removing refractory from burners before shipment to Bloom Engineering will reduce freight costs.
- **Please provide tracking information once available.**

INSPECTION AND ASSESSMENT

Once your items have been received, a shop inspection will be scheduled and performed by a Bloom Engineering Technician. Once the assessment is complete, the results of the assessment will be provided to you by your Bloom Engineering contact to determine next steps.

A repair or rebuild estimate will be prepared based on the results of the inspection and the proposal will be sent to the original requester. The price for a new product will also be provided as a comparison to the Repair/Rebuild price. Bloom Engineering will proceed with the Repair/Rebuild based on customer's approval by confirming change order or purchase order.

QUESTIONS?

Please contact **orders@bloomeng.com** and reference **"REPAIR PROGRAM"** in your email subject line.