

# Self-Recuperative Burner

## APPLICATIONS:

- Steel, Metal, Chemical and Ceramics industries
- Low Temperature Heat Treatment
- Pipe and Tube Mills
- Roller Hearths
- Single and Multiple Stack Annealing Furnaces

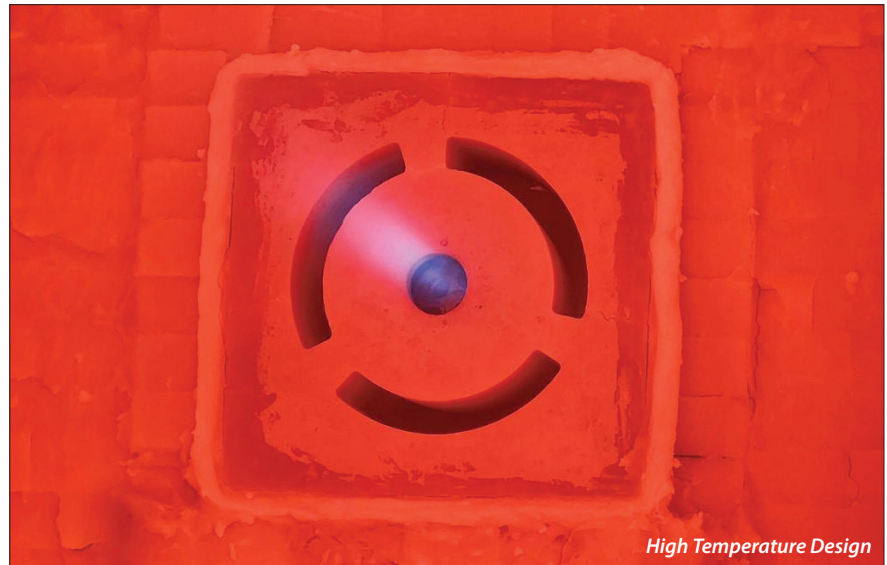
## FEATURES:

- Developed to provide low NO<sub>x</sub>
- Highly efficient recuperator design with length to suit desired heat recovery
- Standard version available for furnace temperature applications below 1832°F (1000°C)
- High temperature design up to 2300°F (1260°C) available
- Converging port for increased flame velocity and uniformity

## CAPABILITIES:

- Nominal Capacity: 150,000 – 2,000,000 Btu/hr (HHV) Pressures at Nominal: less than 16oz. air, less than 2psig fuel
- Various NO<sub>x</sub> reduction options available based on application
- With proper controls, 10:1 turndown is achievable

*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 \ LPG

\*Please Consult a Bloom Representative for availability of other fuel types



### BURNER IGNITION

Direct Spark



### CONTROLS

Proportional or Pulse Fire



### FLAME MONITORING

Standard design: Flame Rod or UV Detection.  
High temperature design: UV Detection only.



### OPTIONS

Customizable recuperator length.  
Optional Eductor for exhaust gas extraction.

# 2450 Series Self-Recuperative Burner



**TABLE 1 - Burner Performance Standard Design**

Catalog No. 2450-	Nominal Capacity Btu/hr (HHV)	Nominal Capacity kW (LHV)
060-FFF*	150,000-450,000	40-120
070-FFF*	375,000-750,000	100-200
080-FFF*	600,000-1,500,000	160-400

\*FFF- Recuperator length in inches

**TABLE 2 - Burner Performance High Temperature Design**

Catalog No. 2450H-	Nominal Capacity Btu/hr (HHV)	Nominal Capacity kW (LHV)
060-FFF*	150,000-450,000	40-120
070-FFF*	375,000-750,000	100-200
080-FFF*	600,000-1,500,000	160-400

\*FFF- Recuperator length in inches

**TABLE 3 - 2450 Spare Parts**

Part Number	Description
01	Exhaust T
02	Recuperator Assembly
03	Gas Nozzle Assembly
04	Ignitor Assembly
05	Port Block (High Temperature design only)

**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**

## *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.

**1**

### **CONTACT BLOOM ENGINEERING**

Email [orders@bloomeng.com](mailto: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.

**2**

### **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.**

**3**

### **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](mailto:orders@bloomeng.com) and reference **"REPAIR PROGRAM"** in your email subject line.