



**PERFORMANCE DRIVEN.**

# **PROFIRE MTH SERIES**

**2.5 TO 25.2 MM BTU/HR**

# Advanced Technology.

## Endless Possibilities.

Designed for process heating applications such as thermal fluid systems and hot oil heating. The C-B ProFire MTH series features a low pressure drop firing head design and low blower motor horsepower requirement for increased efficiencies. Advanced technology allows the MTH series to offer ultra-low-NOx, low CO emissions and up to 5:1 turndown on natural gas.

## Engineered for maximized **EFFICIENCY** and fuel cost savings.



### Swing-Away Air Housing

Provides easy access to the nozzle, scanner and the pilot for inspection or removal. No disconnection of fuel or power lines required.

### Removable Mantle

The mantle is easily removeable without disassembling the burner from the boiler. It can be serviced, inspected and replaced without disconnection of fuel or power lines.

### Parallel Positioning

System includes a completely integrated burner control with fully modulating flame safeguard from a single source. High accuracy and resolution with repeatable actuator positions for efficient operation. Digital positioning feedback from actuators ensure precise control, repeatability, reliability and independent ignition position for greater flexibility.

### High Turndown

Up to 5:1 turndown capabilities on natural gas allows for reduced heat loss due to short cycling, faster response times to meet load demands and less mechanical cycling of load components.

### Low Blower Motor HP

Advanced engineering provides increased combustion air fan efficiency requiring lower blower motor horsepower, thus increasing electrical savings.

## The MTH Burner Explained:

The standard MTH series includes full modulation with parallel positioning and offers natural gas and propane gas from 2.5 to 25.2 MM BTU per hour. Capable of ultra low NOx/CO emissions without FGR, the MTH series features a rugged alloy fiber material combustion element over a stainless steel frame, providing flexibility, longevity and trouble free operation for the life of the burner. The design is ideal for use with applications where low emissions are required and FGR is impractical or inaccessible. The MTH burner with surface stabilized combustion guarantees reliable, quiet operation and is capable of less than 9 ppm, meeting today's most stringent NOx emission levels.

## MTH Burner



**Parallel Positioning** standard for optimal control throughout the firing range

**Premix Fuel** allows uniform flame distribution, low CO emission and high turndown

**Hinged Air Housing** for easy access to internal components

**Combustion Air Fan** efficient airfoil blade design smoothly lifts airflow over the entire blade, resulting in less motor horsepower requirements and significant noise reduction when compared to standard force draft fans

**Ultra-Low-NOx Emissions** up to 9 ppm achieved without FGR

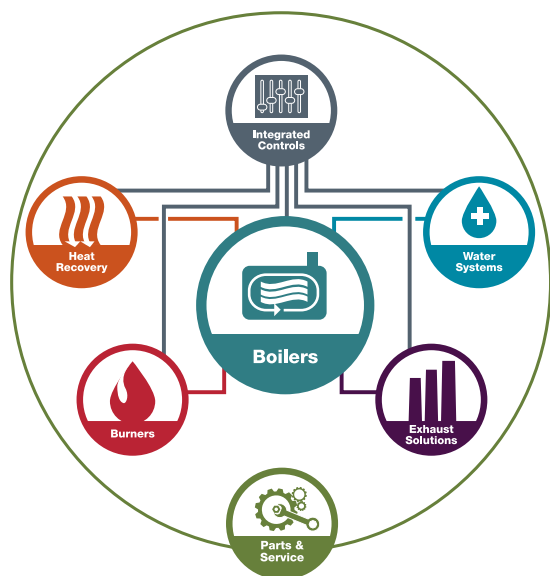
**Rugged Surface-Stabilized Premix Combustion Element** ensures quiet combustion and ultra-low-NOx/CO emissions throughout entire firing range.

**UL/cUL Listed** from 2.5 to 16.0 MM BTU

## Low NOx Emissions Configuration

Burner Model & Frame Size	25-2	35-2	42-3	52-3	63-3	84-4	105-4	126-4	147-4	160-4	210-5	252-5
Gas Input (MBtu/hr)	2,500	3,500	4,200	5,200	6,300	8,400	10,500	12,600	14,700	16,000	21,000	25,200
BHP @ 80% Efficiency	60	83	100	125	150	200	250	300	350	380	500	600
Blower Motor HP	2	5	5	7 1/2	10	10	15	15	20	20	25	40
Furnace Pressure ("w.c.)	2	2	4	4	4	6	6	6	6	6	7	12
Standard Gas Train Pipe Size (in.)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5
Gas Pressure Required (PSI)	1.0	1.5	1.5	2.0	1.5	1.5	2.0	3.0	3.0	3.5	3.5	3.5
Shipping Weight	700	700	900	900	900	1250	1250	1250	1250	1250	1400	1400

Input is based on fuel Btu content and altitude of 2,000 feet or less. If altitude > 2,000 feet and < 8,000 feet, derate capacity 4% per 1,000 feet over 2,000. Consult factory for higher altitudes. Gas input is based on natural gas with 1,000 Btu/cu.ft. and 0.60 gravity. Consult factory for 50Hz. applications. UL/cUL Listed from 2,500 to 16,000 MBtu/hr.



## Total integration doesn't stop with the burner.

Only Cleaver-Brooks offers complete boiler systems, from fuel inlet to stack outlet, that are completely designed, engineered, manufactured, integrated, and serviced by one company. That integration starts with the burner, and Cleaver-Brooks has been perfecting this integral element of the boiler system through innovation and expert engineering for more than 80 years.



Packaged Burner Systems  
 351 21st Street, Monroe, WI 53566 USA  
 608.325.3141 · info@cleaverbrooks.com  
 cleaverbrooks.com