OXY-THERM® LE FF

Flat Flame Burners

- **Fan-shaped flat flame** maximizes radiant heat transfer in furnaces by optimizing flame surface area.
- **Patented deep oxygen staging** optimizes flame luminosity by intermediate free carbon.
- **Achieve industry leading emissions** with MAXON's patented staged oxygen combustion.
- **Higher efficiency operation** as a result of improved heat transfer, greater flame coverage and unmatched radiant uniformity.
- **Operator-friendly design** allows changing burner nozzles or swapping fuels without idling the furnace - no tools required.
- **Rugged, low maintenance design** follows proven OXY-THERM® LE technology

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Product description

The OXY-THERM® LE FF design consists of a single block and housing assembly which accepts different fuel nozzles. The fuel nozzles are interchangeable without the use of tools and can be drilled to a customer's specific capacity to ensure maximum furnace efficiency.

Using MAXON's patented staged combustion technology, oxygen is introduced to the flame in a low NOx or low emissions configuration. This technology allows the heat release and related flame turbulence within the block to be extremely low, providing a cool block discharge with low momentum which eliminates recirculation commonly attributed to batch-related buildup.

While providing outstanding durability, oxygen staging has an additional two-fold effect of minimizing the formation of NOx and improving heat transfer.

Available OXY-THERM® LE FF sizes

Typical burner data Fuel: natural gas at 60°F with 1000 Btu/ft^3 (st) HHV - sg = 0.6 [1] Combustion air: 60°F - 21% O_2 - 50% humidity - sg = 1.0 [1] Stated pressures are indicative. Actual pressures are a function of air humidity, altitude, type of fuel and gas quality			
Standard capacity range		kBtu/h	250 to 15,000 [2]
Turndown			4:1
Required pressures to burner inlet for maximum capacities [3]	Oxygen		See oxygen pressure chart
	Natural gas	psig	0.5 - 8 [3]
	Propane	psig	1 - 20 [3]
Typical oxygen to fuel volumetric ratios [4]	To natural gas		2.05 to 1
	To propane		5.1 to 1

[1] sg (specific gravity) = relative density to air (density air = 0.0763 lb/ft^3 (st))
[2] Higher capacities available; contact MAXON for details.
[3] OXY-THERM® LE FF burners are custom drilled to meet your application and utility requirements. Please contact MAXON for specific details.
[4] Exact calorific values should be checked and oxygen/fuel ratio adjusted accordingly.

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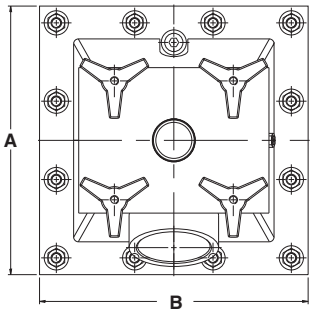
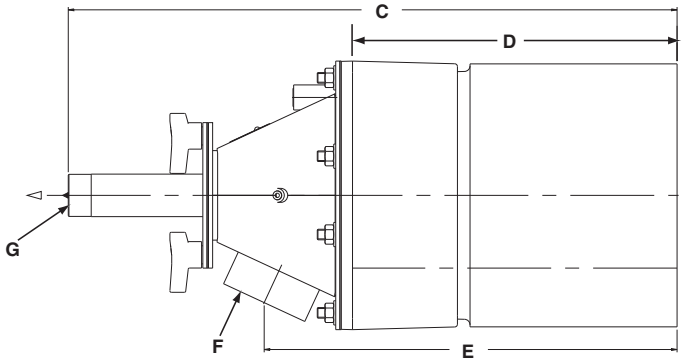
Dimensions and weights





Dimensions in inches unless stated otherwise						
A	B	C	D	E	F Ø	G Ø
12.0	12.0	27.0	15.0	18.5	3” NPT	1-1/2” NPT

Part	Envelope dimensions in inches	Weight lbs
Burner assembly	27” x 12” x 12”	250
Block and frame	15” x 12” x 12”	210

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Typical emissions

Typical NOx ranges from 0.02 to 0.04 #/MMBtu* in a sealed oxy-fuel fired furnace.

*Emission numbers are highly dependent on application. There can be a large variance in actual emissions due to the application-specific furnace conditions (i.e. nitrates in batch, air leakage into furnace, furnace temperature, etc.).

Read “Specifications of OXY-THERM® LE FF Burners” for correct and complete information on OXY-THERM® LE FF Burners.

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