SERIES 300 OXY-THERM®

High temperature burners



- Capacities up to 300,000 Btu/h with choice of two block shapes.
- Burns any gaseous fuel, including poor quality fuels that may be unstable using air for combustion, as well as Hydrogen (up to a 20% H2/80% Natural Gas fuel blend)
- Clean combustion with low NOx levels. OXY-THERM® burners use oxygen for the combustion reaction, removing atmospheric nitrogen as a source of NOx emissions.
- Easy installation and maintenance. OXY-THERM® burner nozzles can be removed during furnace operation, eliminating costly downtime.
- Dramatically increase efficiency by producing higher flame temperatures from burning fuels with oxygen.
- Substantially reduce the size of exhaust gas handling equipment. Oxygen-fuel firing can reduce flue gas volume and exhaust gas treatment requirements by 75% or more.
- Improve heat transfer with increased flame temperature and luminosity.
- Self-cooling design eliminates the need for water cooling and related water piping and maintenance.
- Simple, robust design and high operational turndown provides application flexibility.



PRODUCT DESCRIPTION

With Series 300 OXY-THERM® burners, oxygen for combustion enters the burner body, mixes with the fuel at the nozzle and exits the burner block.

The flame discharges through the refractory block tunnel and develops a luminous, tightly-wrapped flame pattern.

The alumina/zirconia/silica (AZS) composition refractory block is available in both 3" (75.2 mm) square and 3" (75.2 mm) round versions.

The Series 300 OXY-THERM® burner features a direct spark option. Contact your MAXON representative about specific ignition questions.

Insulator block is included with direct spark option. If UV sensing is required with the direct spark option, UV scanner adapter should be ordered.

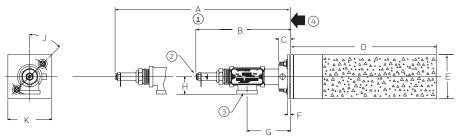


TYPICAL BURNER DATA Fuel: Blend Fuel (80%NG+20%H2) with 863 Btu/ft³ HHV - sg = 0.49 [1] (80%Propane+20%H2) at 60°F with 2070 Btu/ft3 HHV - sg = 1.232 [1]							
OXY-THERM®	Series 300						
Maximum capao	300,000						
Minimum capacit	5,000						
Required pressures to burner inlet	Oxygen flow	scfh	619.5				
	Oxygen pressure	"WC	2.8				
for maximum capacities	Natural gas [3]	psig	6.8				
	Propane [3]	psig	3.0				
Typical oxygen to fuel volumetric ratios	To natural gas	1.74 to 1					
	To propane		4.18 to 1				
Approximate flame size (visible flame length firing in open air)	Diameter	inches	1 to 6				
	l enath	inches	36				

APPLICATIONS

Typical applications include regenerative-type furnaces and melters, unit melters, laboratory furnaces, non-ferrous melting and recovery, flame treating, glass forehearths, and various applications requiring high temperatures with focused flame profiles.

DIMENSIONS AND WEIGHTS



- Standard burner (without direct spark option) shown

DIMENSIONS IN INCHES UNLESS STATED OTHERWISE							
А	В	С	D	E	F		
16.5	6.5	0.8	10.0	3.0	0.2		
G	Н	J	K square	Weight lbs			
3.0	1.2	45°	3.0	11			

TYPICAL EMISSIONS

1 Removal clearance

2 Gas inlet (1/8" NPT) 3 3/4" NPT oxygen inlet 4 Exterior furnace wall

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

For more information

The Honeywell Thermal Solutions family of products includes Honeywell Combustion Controls, Honeywell Combustion Safety, Honeywell Combustion Service, Eclipse, Exothermics, Hauck, Kromschroder and Maxon.

To learn more about our products. solutions and services, visit ThermalSolutions.Honeywell.com or contact your Honeywell Sales Engineer.

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