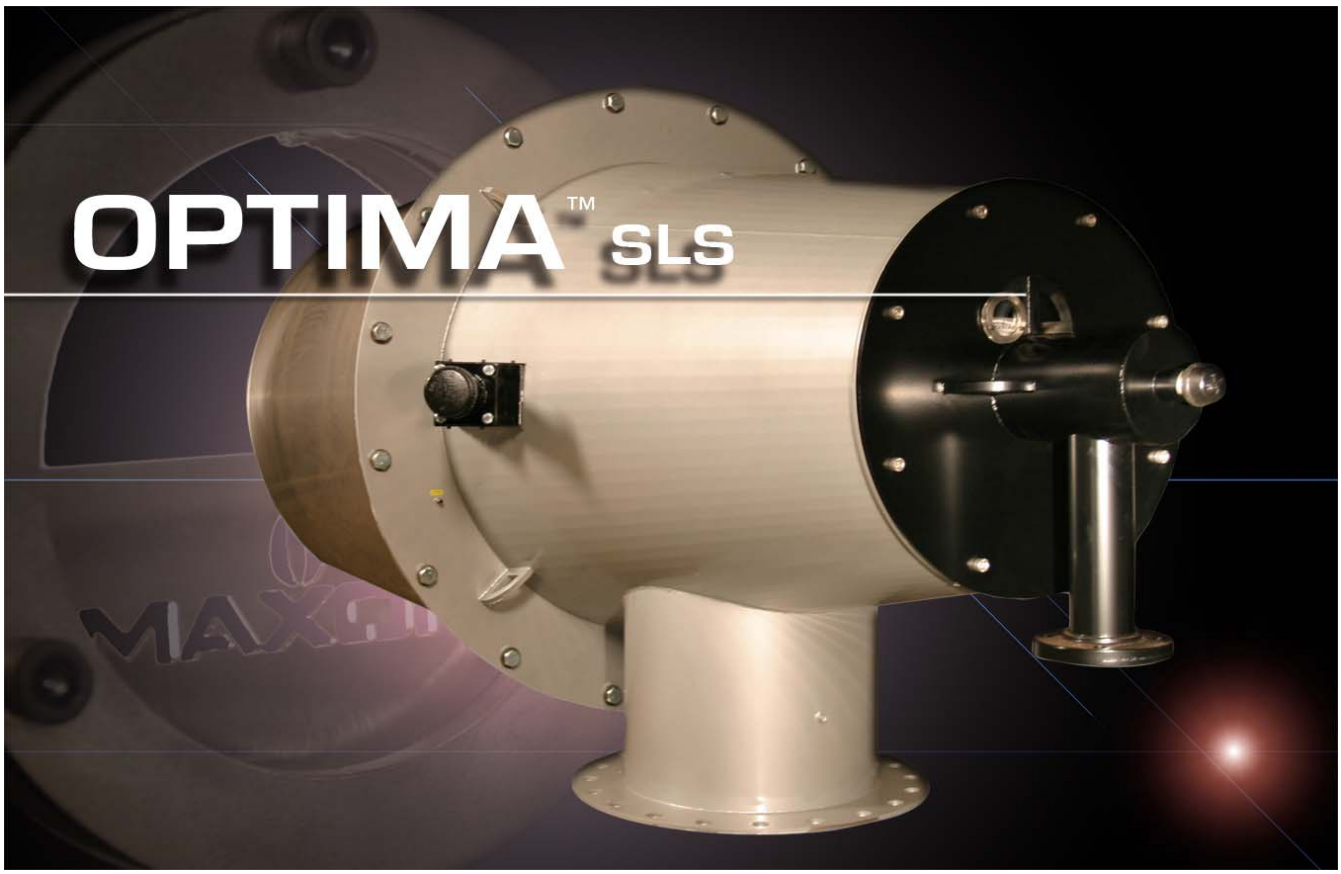
OPTIMA™ SLS

Ultra Low Emissions Burner



- Extremely clean, reliable heat with ultra low NO_x and CO production for ease of air permitting and environmental compliance
- Large capacity heat releases with a compact, robust flame geometry
- Intelligent ratio control for reliable operation and optimal fuel efficiency
- Direct factory operational support with optional SMARTFIRE® control and communication gateway
- All steel and high temperature alloy construction for reduced weight and increased durability
- Fuel flexible with natural gas, propane, and butane capability. Contact MAXON for other fuels.
- Configurable for dryers, air heaters, ovens, kilns, process heaters, paper machines, and a variety of other industrial heating equipment

MAXON® A Honeywell Company

Product description

OPTIMA™ SLS is a nozzle-mixing, ultra low NO_x and ultra low CO burner. The burner is suitable for installation in dryers (spray, flash, fluidized bed, print, paper and others), air heaters, kilns, process heaters, and ovens. The all-metal burner design provides very compact, repeatable heating with a flame fully contained in its discharge sleeve.

OPTIMA™ SLS provides optimal performance when coupled with MAXON's SMARTFIRE® Intelligent Ratio Control System. This advanced control package allows the burner to be fully factory preset for trouble-free installation and start-up. In addition, the intelligence of SMARTFIRE® keeps the burner fully optimized for fuel efficiency and emissions. With the optional communications gateway, your OPTIMA™ SLS Burner can be supported by MAXON over any common phone line.

Available OPTIMA™ SLS sizes

Typical burner data
Fuel: natural gas at 15°C with 10.9 kWh/Nm^3 HHV - sg = 0.6 [1]
Combustion air: 15°C - 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

Burner Size			8”	10”	12”	14”	16”	19”	22”
Maximum Capacity	Heat Input	kW HHV	3800	6000	9700	12000	15109	20643	27400
Fuel Pressure at burner inlet [2]	Differential Pressure	mbar	257	232	430	230	203	174	178
Combustion Air Pressure [3]		mbar	80	80	80	80	80	80	80
Turndown Ratio			8:1						

[1] sg (specific gravity) = relative density to air (density air = 1.293 kg/Nm^3).
[2] Differential natural gas pressure required at burner gas inlet
[3] Differential combustion air pressure at full capacity measured at the air test port

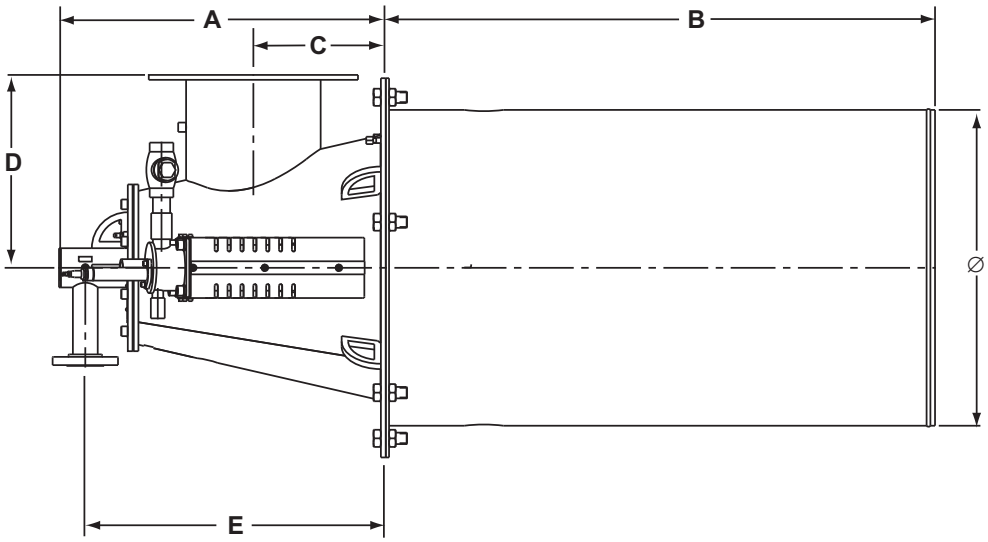
Applications

OPTIMA™ ultra low NO_x burners have been especially designed for heating industrial processes requiring low output of NO_x and CO. Its rugged steel and alloy design makes the burner suitable for industrial process stream applications, moist atmospheres, high process air temperatures and some indirect heating processes. The burner can operate very reliably in large heating applications to reduce environmental footprint and alleviate environmental permitting issues.

Typical applications:

- Paper, wood, gypsum and other dryers with air with high humidity content and high capacity needs.
- Indirect heating of product streams in coils where uniform heat transfer and reduced pollutants are required.
- Drying and curing of food products or paint products where reactions with combustion products must be minimized.

Dimensions and weights



Dimensions in mm unless stated otherwise							
Burner Size	A	B	C	D Ø	E	Ø	Weight kg
8”	635	1066	258	375	584	614	160
10”	860	1066	326	465	732	766	235
12”	1168	1206	372	570	1020	922	340
14”	1236	1372	368	640	1148	1072	544
16”	1537	1524	390	765	1336	1222	590
19”	1606	1676	460	812	1460	1300	646
22”	1780	1803	476	850	1516	1376	794

Typical emissions

OPTIMA™ SLS provides clean, reliable heat while producing extremely low levels of NOx and CO. The patented SLS technology (shear layer stabilization) contained in OPTIMA™ manages peak flame temperatures while the non-recirculating flame drives prompt NOx formation to near zero. CO production is eliminated through the advanced rapid mixing design and fully contained flame.

Exact emissions performance may vary in your application. Contact MAXON for information on installation-specific estimates and guaranteed values. No guarantee of emissions is intended or implied without specific, written guarantee from MAXON.

Read "Specifications of OPTIMA™ SLS burners" for correct and complete information on OPTIMA™ SLS burners.