

# M-PAKT®

## Ultra Low NOx Burners



- Produces extremely low emissions of NO<sub>x</sub> and CO
- Burns natural gas or propane
- Flame contained almost entirely inside the discharge sleeve
- Compact packaged design with a variety of control methods
- Durable steel outer construction with stainless steel internals
- Optional discharge sleeve selections for use with low or high temperature applications

## Product description

Typical MAXON quality and reliability is found in the M-PAKT® Ultra Low NOx Burners, which provide the world's lowest levels of NOx and CO. NOx is typically single digits in most applications. The M-PAKT® low NOx burner is suitable for industrial air heating for ovens and dryers for paint finishing, paper making, food baking, textile production, grain drying, and make-up air heating. With optional sleeve materials, M-PAKT® burners substantially reduce emissions in oxidizers, incinerators, heat exchangers and process heaters.

## Available M-PAKT® burner sizes

Typical burner data						
Fuel: natural gas at 15°C with 10.9 kWh/Nm <sup>3</sup> HHV - sg = 0.6 (1)						
Combustion air: 15°C - 21% O <sub>2</sub> - 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						
Packaged Burners						
Size		0.4M	0.9M	1.5M	2.5M	3.5M
Maximum Capacity HHV (2)	kW	120	265	468	732	1024
Minimum Capacity HHV		20	38	60	110	145
Turndown	N/A	5.9:1	7:1	8.5:1	7:1	7.4:1
Pilot Capacity	m <sup>3</sup> (st)/h	0.57-2.3	0.57-2.3	0.57-2.3	0.57-2.3	0.57-2.3

(1) sg (specific gravity) = relative density to air (density air = 1.293 kg/Nm<sup>3</sup>)

(2) Capacities listed require blower operation on 60 Hz. For 50 Hz operation, reduce capacity by 17%.

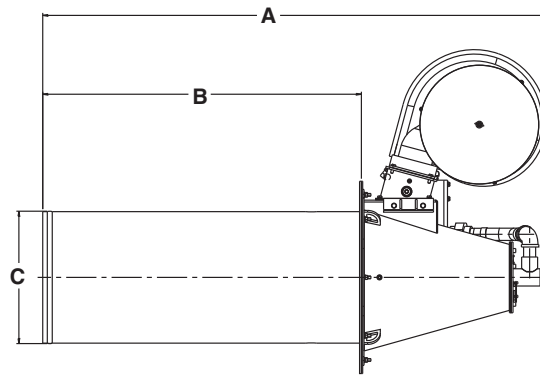
Contact MAXON for operating pressures for burners produced prior to 5/1/07.

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Stated pressures are indicative. Actual pressures are a function of air humidity, altitude, type of fuel and gas quality							
External Blower Burners							
Size		EB2	EB3	EB4	EB5	EB6	EB7
Maximum Capacity HHV (1)	kW	235	500	800	1320	1700	2460
Minimum Capacity HHV		21	38	60	110	145	264
Turndown	N/A	11.4:1	13.3:1	13.5:1	12.2:1	11.6:1	9.1:1
Pilot Capacity	m <sup>3</sup> (st)/h	0.57-2.3	0.57-2.3	0.57-2.3	0.57-2.3	0.57-2.3	0.57-2.3

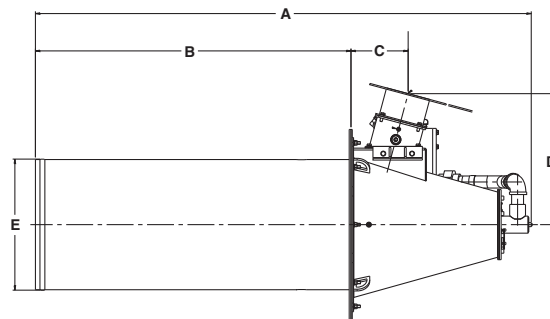
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## Dimensions and Weights



Dimensions in mm unless stated otherwise				
Packaged Burners				
Burner Size	A	B	C Ø	Weight (kg)
0.4M	1325	730	264	79
0.9M	1325	730	264	84
1.5M	1761	1117	463	118
2.5M	1761	1117	463	147
3.5M	1761	1117	463	156



Dimensions in mm unless stated otherwise						
External Blower Burners						
Burner Size	A	B	C	D	E Ø	Weight (kg)
EB2	1249	730	152	349	264	54
EB3	1249	730	152	349	264	57
EB4	1752	1117	201	463	463	88
EB5	1752	1117	201	463	463	113
EB6	1752	1117	201	463	463	125
EB7	1752	1117	201	463	514	125

## Typical emissions

The M-PAKT® Ultra Low Emissions Burner produces NOx and CO emissions up to 95% less than conventional burners. Without exotic alloys or fragile ceramics, the burner reduces NOx with a patented, advanced flame stabilization. The M-PAKT®'s advanced anchoring of the flame reduces prompt NOx while thermal NOx is suppressed with an extremely uniform mixture.

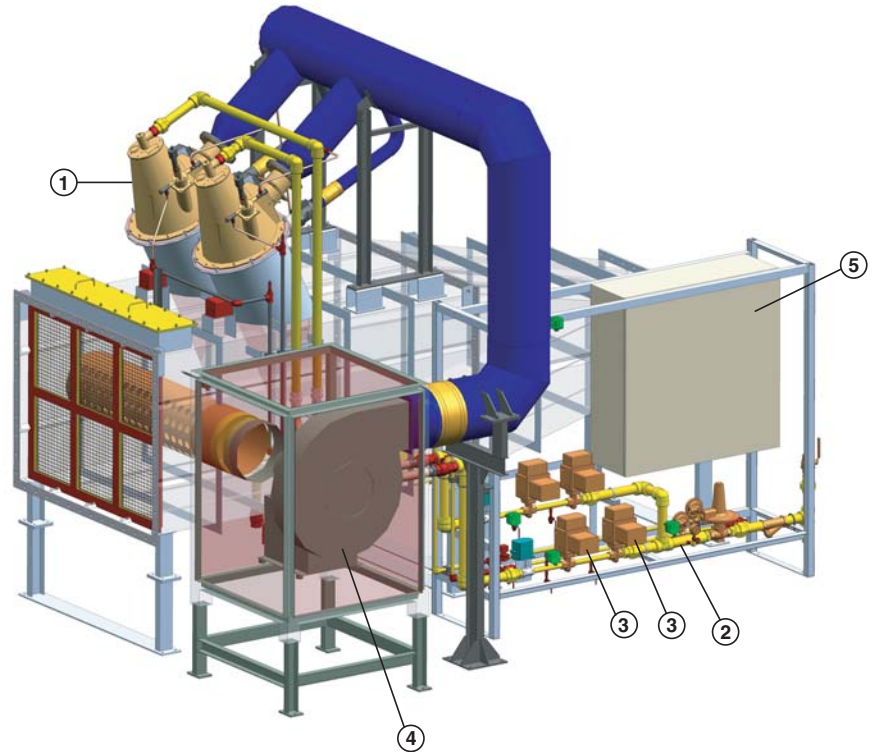
In application, the M-PAKT® Ultra Low Emissions Burner produces single digit NOx corrected to 3% oxygen. In most installations, CO production is limited to extremely low levels. Exact emissions performance may vary in your application. Contact MAXON for information on installation specific estimates or guarantees. No guarantee of emissions is intended or implied without specific written guarantee from MAXON.

Factors that can affect emissions:

- Process air direction, temperature and velocity
- Process stream constituents, especially nitrogen bearing compounds
- Combustion air quality, relative humidity and filtration
- Burner location and installation
- Fuel quality and heating value
- Emissions instrument calibration and testing protocol

## Application example of M-PAKT® gas burner

- 1) M-PAKT® Ultra Low NOx Burner
- 2) Pipe train constructed for required codes and authorities
- 3) MAXON 5000 Series Shut-off Valves
- 4) Combustion air blower
- 5) System control panel



A typical air heater incorporating M-PAKT burners

Read "Specifications of M-PAKT® Burner" for correct and complete information on M-PAKT® Burners.