KINEDIZER®
High capacity low NOₓ gas burners

- **Field proven low emissions.** State-of-the-art Low NOₓ firing - adjustable for application flexibility.
- **Rugged design** for oxidizers, process heaters, kilns, furnaces, dryers, waste incineration and other low and high temperature applications.
- Available in a **wide range of capacities, each** with turndown as high as 40:1.
- **Nozzle mixing** design.
- Burns **natural gas, propane** or other fuel gases.
- Provides **excellent stirring and mixing** with its medium velocity exhaust.
- Accepts **preheated and vitiated combustion air**.
- Can be used with cross velocities up to 3000 ft/min.
High temperature burners - KINEDIZER®

Product description

The KINEDIZER® burner is a nozzle-mixing medium-velocity design. Using advanced mixing technology, the burner produces low emissions with very little excess air. Ruggishly built with a reinforced refractory block and steel burner body and nozzle, it burns natural gas, propane or other fuels. Combustion air is supplied with an external blower. Accurate air and fuel modulation can be accomplished by the MAXON MICRO-RATIO® valve or SMARTLINK® technology.

Combustion air can range from 21 % down to 17 % O₂ if preheated and from ambient temperature up to 660° F (max. 800° F) on request). Maximum chamber temperature is 2000° F, with any cross velocity up to 3000 ft/min.

The KINEDIZER® burner’s maximum capacity can be boosted by 20 % simply by supplying higher combustion air and gas pressures.

Contact MAXON for correct application details.

Available KINEDIZER® sizes

<table>
<thead>
<tr>
<th>KINEDIZER® size</th>
<th>0.5M</th>
<th>2.5M</th>
<th>5M</th>
<th>9M</th>
<th>18M</th>
<th>27M</th>
<th>40M</th>
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<tbody>
<tr>
<td>Max. capacity @ n=1,3 MBtu/h HHV</td>
<td>0.5</td>
<td>2.5</td>
<td>5</td>
<td>9</td>
<td>18</td>
<td>27</td>
<td>40</td>
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<tr>
<td>Turndown 1:10</td>
<td>1:15</td>
<td>1:40</td>
<td>1:40</td>
<td>1:40</td>
<td>1:40</td>
<td>1:30</td>
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<tr>
<td>Air flow at max. capacity scfm</td>
<td>107</td>
<td>540</td>
<td>1071</td>
<td>1960</td>
<td>3920</td>
<td>5845</td>
<td>8658</td>
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<tr>
<td>Air turndown 1:6</td>
<td>1:9</td>
<td>1:16</td>
<td>1:16</td>
<td>1:23</td>
<td>1:23</td>
<td>1:14</td>
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<tr>
<td>Advised pilot capacity MBtu/h HHV</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>0.5</td>
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<td>Comb. air pressure @ inlet &quot;wc</td>
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<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>28</td>
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<td>Nat. gas inlet pressure diff. &quot;wc</td>
<td>47</td>
<td>61</td>
<td>86</td>
<td>83</td>
<td>110</td>
<td>110</td>
<td>67</td>
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</tbody>
</table>

[1] sg (specific gravity) = relative density to air (density air = 0.0763 lb/ft³(st)).
[2] Combustion air pressure required at full capacity, relative to process.

Add 5% safety margin + piping & control valve pressure drops for blower sizing.
Applications

KINEDIZER® burners may be applied to a variety of applications for low to ultra-low emissions. The rugged design of the KINEDIZER® burner is ideal for oxidizers and incinerators, process heaters, kilns, furnaces, and other high-temperature applications.

KINEDIZER® 40M burner with pipe-train, control panel and combustion air blower.
Dimensions and weights

KINEDIZER® 0.5M and 2.5M - ANSI

0.5M and 2.5M are all exclusive NPT / ANSI KINEDIZER® burners

1) Scanner position
2) Combustion air test connection
3) Optional air inlet flange
4) Combustion air inlet
5) Spark ignitor
6) Pilot gas inlet
7) Main gas inlet

Dimensions in in. unless stated otherwise

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<tr>
<td>.5M</td>
<td>3&quot; ANSI</td>
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<td>7.86</td>
<td>3/8&quot; NPT</td>
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<tr>
<td>2.5M</td>
<td>6&quot; ANSI</td>
<td>6.94</td>
<td>10.06</td>
<td>3/8&quot; NPT</td>
<td>6.19</td>
<td>9.60</td>
<td>10.42</td>
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</table>

[1] Available with SCH10/SCH40 pipe air connection or with ANSI 150 lbs flange connection.
KINEDIZER® 5M - 9M - 18M - 27M and 40M - ANSI

1) Std. scanner position
   1" NPT
2) Combustion air test connection
3) Optional air inlet flange
4) Combustion air inlet
5) Spark ignitor
6) Pilot gas inlet
7) Main gas inlet

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<td>15.09</td>
<td>3/8&quot; NPT</td>
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<td>12&quot;</td>
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<td>3&quot;</td>
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<td>4&quot;</td>
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<td>37.09</td>
<td>6&quot;</td>
<td>16.5</td>
<td>12.12</td>
<td>23.91</td>
<td>922</td>
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</table>

[1] Available with SCH10/SCH40 pipe air connection or with ANSI 150 lbs flange connection.
KINEDIZER® 9M - 18M - 27M and 40M - ISO

9M - 18M - 27M - 40M KINEDIZER® have different versions for the European market with flanged air and gas inlet to comply with CE requirements for fuel gas piping.

1) Std. scanner position
   1” Rc1
2) Combustion air test connection
3) Optional air inlet flange
4) Combustion air inlet
5) Spark ignitor
6) Pilot gas inlet Rp 3/4
7) Main gas inlet
   DIN 2578 PN10

Dimensions in in. unless stated otherwise

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[1] DN80, DN100 and DN150 refer to PN10 (ISO7005) flanges. 18” ANSI will accept a 150 lbs ANSI B16.9 inlet flange. For the 18” and 22” air inlet, an optional companion flange can be supplied.
Typical emissions

The KINEDIZER® burner is capable of low NO\textsubscript{x} when given excess air, typically 25-30 % at high fire.
The same burner, when adjusted for on-ratio operation, will give low CO and high thermal efficiency. With flue gas recirculation, the emissions and efficiency can be further improved.

Read “Specifications of KINEDIZER® gas burners” for more detailed information on KINEDIZER® burners.