Supporting lead-free soldering

**N₂ system**

For lead-free soldering

N₂ gas and preheating effect improves the solderability greatly!

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### Performance table of FX-780

<table>
<thead>
<tr>
<th>No concentration (%)</th>
<th>99.9</th>
<th>99.5</th>
<th>99.0</th>
<th>98.0</th>
<th>97.0</th>
<th>96.0</th>
<th>95.0</th>
<th>94.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output amount (m³/h)</td>
<td>0.15</td>
<td>0.24</td>
<td>0.48</td>
<td>0.86</td>
<td>1.11</td>
<td>1.33</td>
<td>1.64</td>
<td>2.00</td>
</tr>
</tbody>
</table>

### Performance table of FX-781

<table>
<thead>
<tr>
<th>No concentration (%)</th>
<th>99.9</th>
<th>99.5</th>
<th>99.0</th>
<th>98.0</th>
<th>97.0</th>
<th>96.0</th>
<th>95.0</th>
<th>94.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output amount (m³/h)</td>
<td>0.055</td>
<td>0.07</td>
<td>0.11</td>
<td>0.18</td>
<td>0.24</td>
<td>0.31</td>
<td>0.37</td>
<td>0.44</td>
</tr>
</tbody>
</table>

### Specifications

- **FX-780**
  - Air supply pressure: 2.4 to 2.7 MPa
  - Consumption of nitrogen: 88 to 92 m³/h
  - Amount of nitrogen: 0.1 to 0.15 m³/h
  - Dimensions: 193 (W) x 135 (D) x 140 (H) mm
  - Weight: 7 kg

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### Packing List

- **FX-780**
  - HAKKO FX-781 N₂ generator: 1
  - Rack for station: 2

- **FX-781**
  - HAKKO FX-781 N₂ generator: 1
  - Rack for station: 1
  - Fitting: 1

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### HAKKO FX-791

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
<td>FX-791-01</td>
</tr>
<tr>
<td>Outer dimensions</td>
<td>790 x 120 x 414 (mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.2 kg</td>
</tr>
</tbody>
</table>

### Packing List

- **FX-791**
  - HAKKO FX-791 N₂ station: 1

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Please access the following for the other sales affiliates and distributors:

http://www.hakko.com

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The lineup for the N₂ system has greatly improved design and cost performance.

**Features of the HAKKO N₂ system**

**Preheating effect**
The preheating effect is achieved by passing Nitrogen gas along the heating element in the hand piece. Soldering can be done on multilayer PWB and high density PWB sensitive to heat without raising the temperature of the tip excessively, even when the melting point of lead-free solder is high.

**Improvement of wettability and spreadability**
By using the HAKKO N₂ system, the wetting and spreading are excellent for eutectic solder, lead-free solder and high-temperature solder, compared with our conventional soldering iron.

**Preventing oxidation**
Oxidization of solder and soldering tip can be prevented by using Nitrogen gas, which passes along the nozzle assembly uniformly.

**Space saving**
In case of setting with HAKKO FX-951, the dimensions are 163(W) x 282(H) x 131(D)mm.
In case of setting with HAKKO FM-203, the dimensions are 193(W) x 282(H) x 190(D)mm.

**Comparison of wettability and spreadability**

**Compact N₂ flow meter**
This meter is very compact and can be installed in a minimal space next to the soldering station. The flow meter has a range between 0.25 to 2.5 L/min, allowing easy control.

(Recommended flow rate is 0.5 L/min, 1.5 L/min. Adjust the flow rate depending on the tip shape.)