Auto Sampler Options for the EMIA/EMGA Elemental Analyzers

*Safely and stably streamline your measurement workflow*
The Benefits

Guarantees the accuracy of measurement results and avoids physical strain on operators

- **Maximized accuracy and reproducibility**
  - Minimizes human errors and ambient dust contamination, resulting in precise and consistent results.
  - Eliminates fluctuations in furnace temperature and timing of crucible setting for improved analytical result reproducibility.

- **Enhanced safety**
  - During the measurement, the furnace, reaching temperatures of several thousand degrees Celsius, requires opening and closing for crucible insertion and removal. By reducing manual handling around the furnace, it minimizes the risk of contact with the hot components and preventing clothes, hands, or the like from being caught.

- **Improved productivity and reduction of operator workload**
  - It facilitates more efficient operation and sample handling, resulting in reduced processing time and increased sample throughput.
  - After preparing several samples, the measurements can be started while the operator is preparing the rest of the samples to save the total operation time - by automating repetitive tasks and time-consuming operations or maintenance, operators can focus more effectively on their work.

With Auto Sampler Unit

**Sample Preparation**

**Measurement – The operator can leave the site**

Manual Operation

**More than 40 Years of Continuous Evolution**

We have long been collaborating with professionals in the demanding steel industry to refine our Auto Sampler function.

Thus, we are highly confident in its safety, durability and user-friendly operation.

### 1980s

- **1980 EMIA-1XXX**
  - Technology transfer from Kokusai Electric

- **1983 EMIA-2XXX**
  - Electrical control type
  - High concentration measurement

### 1990s

- **1986 EMIA-5XX/6XX**
  - Powerful data processing function

- **1997 EMIA-8XXW**
  - Change to Windows®
  - Increases data processing

### 2000s

- **1999 EMIA-9XXV**
  - High accuracy
  - Increased maintenance efficiency

- **2009 EMIA-9XXV2**
  - Advanced function

### 2010s

- **2015 EMIA-Pro/Expert**
  - Improved maintenance & operation

### 2020s

- **2017 EMIA-Step**
  - Advanced function

- **2022 EMGA-Pro/Expert**
  - Fast measurement
  - Improved maintenance & operation

- **2022 EMGA-9XX/8XX**
  - High performance
  - Easy maintenance
  - Automation
The Auto Sampler for the EMIA Series

- Up to 20 samples can be quickly handled by number or by the order in which they are placed. It also supports the addition of an accelerator feeding function. The number of sample loadings can be tailored to your needs.

- All areas accessible to the operator have safety covers with interlocks. This cover also prevents ambient dust that can influence the result, from entering the crucible.

The Auto Sampler can be retrofitted to the measurement unit with a minor modification. Watch the actual operation and performance in the video.

**Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>100 - 220V, 50/60Hz, 0.5kVA</td>
</tr>
<tr>
<td>Gas</td>
<td>N₂ or dried air (supplied from the measurement unit)</td>
</tr>
<tr>
<td>Operation</td>
<td>Control from the EMIA software, with Error Alarm function</td>
</tr>
<tr>
<td>Option</td>
<td>Customization of sample loading numbers, Accelerator feeding function, an extra interlock</td>
</tr>
</tbody>
</table>

**Dimensions**
The Auto Sampler for the EMGA Series

- The turntable allows for the placement of up to 22 samples, including fluxes. A standard equipment cover with an interlock is provided to protect the samples during measurement and prevent contact with the rotating disk. For additional security, an optional locking cover is available.

- The Auto Sampler Unit can be conveniently moved with a single touch to access the sample feeding section for maintenance purposes, ensuring smooth maintenance work.

- It enables automated analysis of various samples, excluding powders. It features a user-friendly design for secure sample placement and includes a function to stop operation if samples do not drop correctly.

- The inside of the Auto Sampler cover is equipped with a mirror, allowing operators to easily introduce samples and fluxes while looking at the mirror.

Technical Specifications

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<th>Power</th>
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<tr>
<td>Gas</td>
<td>Unnecessary</td>
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<tr>
<td>Operation</td>
<td>Control from the EMGA software, with Error Alarm function</td>
</tr>
<tr>
<td>Option</td>
<td>An extra interlock *Please inquire for samples with special shapes</td>
</tr>
</tbody>
</table>

Dimensions

Other automation options for EMGA Series

- **Crucible Loader**
  - Precise capture and positioning of crucibles by rotary mechanism.
  - Maximum stock: 100 pcs.

- **Auto Cleaner**
  - Two rotating brushes clean the upper and lower side electrodes after each measurement.