RND EFEM (Equipment Front End Module)

Features

- Integrating a prealigner with a clean robot results in a small footprint and allows space to be used with great efficiency.
- Clean Robot with an end-effector on a rotary axis operates without a traverse axis contributing to a high throughput (Smart motion robot in 2 or 3 Port EFEM).
- Clean robot’s air-flow simulation optimizes and ensures high level of Cleanliness.
**Configuration**

- **Loadport**
- **Clean Robot (Single or Dual Arm)**
- **Linear track (for traveling)**

**Encloser structure**
- Fan Filter Unit (FFU)
- Area sensor

**System Software**
- System Electric parts

**Options**
- Wafer aligner
- Ionizer
- PIO sensor
- RFID reader/writer
- Teaching Pendent

**Communication**

**HOST**
- RS-232 LAN

**MAIN CONTROL PC**
- RS-232C

**WTR & TRCK CONTROLLER**
- I/O

**LOADPORT**

**PRE-ALIGNER**

**OPTION**

**UTILITY**
# RND EFEM(Equipment Front End Module) Specification

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RE-2P</th>
<th>RE-3P</th>
<th>RE-4P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadport</td>
<td>2 port</td>
<td>3 port</td>
<td>4 port</td>
</tr>
<tr>
<td>Size (mm)</td>
<td>1355x760x2000</td>
<td>1860x678x2000</td>
<td>2365x678x2000</td>
</tr>
<tr>
<td>Weight</td>
<td>250 kg</td>
<td>350 kg</td>
<td>450 kg</td>
</tr>
<tr>
<td>Height</td>
<td>2,000~2,800 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>1,650~1,854 mm (at 3PODs)</td>
<td>678mm</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td>Less than 480 kg</td>
<td></td>
</tr>
<tr>
<td>Carrier</td>
<td>300mm FOUP (SEMI E14.7 – 1101 Compliance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanliness</td>
<td>Class@0.1㎛</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laminar Flow Recovery Time</td>
<td>Less than 1 mininute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td>Less than 0.1mm@3sigma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alignment accuracy/Time</td>
<td>±0.05 Degree/6 sec</td>
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<td></td>
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<tr>
<td>Electric Supply</td>
<td>220V±10%(60Hz, 1φ) 3 wires + ground, no neutral</td>
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<td></td>
</tr>
<tr>
<td>Accoustic Noise</td>
<td>Less than 60dB</td>
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<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Ether-Net(HSMS)</td>
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<td></td>
</tr>
<tr>
<td>MTBF/MTTR</td>
<td>More than 2,000hrs/ Less than 2hrs</td>
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<td>GUI-Touch Screen(Optional)</td>
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## General Specification

- **Height**: 2,000~2,800 mm
- **Width**: 1,650~1,854 mm (at 3PODs)
- **Depth**: 678mm
- **Weight**: Less than 480 kg
- **Carrier**: 300mm FOUP (SEMI E14.7 – 1101 Compliance)
- **Cleanliness**: Class@0.1㎛
- **Laminar Flow Recovery Time**: Less than 1 mininute
- **Repeatability**: Less than 0.1mm@3sigma
- **Alignment accuracy/Time**: ±0.05 Degree/6 sec
- **Electric Supply**: 220V±10%(60Hz, 1φ) 3 wires + ground, no neutral
- **Accoustic Noise**: Less than 60dB
- **Communication**: Ether-Net(HSMS)
- **MTBF/MTTR**: More than 2,000hrs/ Less than 2hrs
- **User Interface**: GUI-Touch Screen(Optional)