M. Takahashi have studied and engaged in R&D of ‘Ultrasonic fish finder’ in the ultrasound laboratory of Shibaura Institute of technology in the late 1950s. Tips is that he found the fine-bubbles generated from the fishing boat screw of old model in the process of development of fish finder. That was found because of cavitation phenomenon. It led to the development of fine-bubble generator. He decided to start development applications of fine-bubble.

We have been supported a number of the “encounters” for our history of research and development of 50 years. We have developed the “original products such as” unit filtration device”, “Bubbling nozzle that can be broken down”, “light catalyst filtration device” and others in addition to the “fine-bubble generation technology”

Ultrasonic laboratory, Shibaura Institute of Technology (1964) M. Takahashi is sitting in the front row far left

Cavitation due to the screw of fishing boat (light picture)

Nano-bubbles of several tens of million cells / ml has been confirmed by the measurement in Nanometer particle analyzer “Nano sight”.

● APPLICATIONS
Water purification, cleaning, culture, fermentation, sterilization, deodorant, aeration, degassing, nano-bubbles mist, chemical reaction synthesis, emulsion, liquid-liquid mixing, dispersion, dental mouthwash, atopic medical treatment and nursing care bathing, agricultural water, high concentration hydrogen water other
● Gas ... Ozone, oxygen, hydrogen, argon, nitrogen, carbon dioxide and other
● Liquid ... Water, an organic solvent, oil, even highly viscous liquid.

It is recommended for bubbling of organic solvents.
### 【Large capacity】

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow capacity</th>
<th>Weight</th>
<th>Power supply</th>
<th>Power consumption</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 LEX50</td>
<td>42~60</td>
<td>50</td>
<td>3 phase 200~220V</td>
<td>1.1 Kw</td>
<td>800×700×400</td>
</tr>
<tr>
<td>2 LEX50T</td>
<td></td>
<td></td>
<td>3 phase 200~220V</td>
<td></td>
<td>920×830×430</td>
</tr>
<tr>
<td>3 LEX200</td>
<td>160~200</td>
<td>200</td>
<td>3 phase 200~220V</td>
<td>5.5 Kw</td>
<td>1190×927×623</td>
</tr>
</tbody>
</table>

※Flow amount may vary depending on the installation conditions, etc.
※Specifications and appearances may be change without notice in advance.

### 【Portable】

Compact and Silent model.

**【LEA10】**

Easy operation, easy maintenance. It can be used for various purposes.

- Capacity: 6-10L/min.
- Weight: 14kg
- Power supply: AC100V
- Frequency: 50/60Hz
- Electric Consumption: 600/650W
- Dimension: H640xW440xD280 mm
- Included Parts: such as Grounding, flow control valve, Air control valve, Hoses.

![Image of LEA10](image)

### 【Middle size】

**【LEA15】** Vertical Stainless steel mixing header type, excellent durability.

- Capacity: 15L/min.
- Weight: 28.0kg
- Power supply: AC100V
- Frequency: 50/60Hz
- Power consumption: 600/650W
- Size: H640xW440xD280 mm
- Included parts: such as Grounding, flow control valve, air control valve

![Image of LEA15](image)

We also welcome the order of special specification product such as heat-resistant, specializing for high viscosity liquid, made of fluorine, built-in unit and so on. OEM supply is also available.