Process development facilities

Serichim operates the entire set of equipment for process development study and evaluation, including batch and continuous reactors, crystallization and filtering apparatuses, batch and continuous distillation columns and liquid-liquid extraction columns. Practically all common continuous operations can be operated at lab, bench and pilot scales.

The reactor families.

**Batch reactors**

<table>
<thead>
<tr>
<th>Volume, l</th>
<th>500</th>
<th>500</th>
<th>200</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>30</th>
<th>30</th>
<th>20</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure, barg</td>
<td>-1 / 5</td>
<td>-1 / 5</td>
<td>-1 / 5</td>
<td>-1 / 5</td>
<td>-1 / 5</td>
<td>-1 / 5</td>
<td>-1 / 0</td>
<td>-1 / 0</td>
<td>-1 / 0</td>
<td>-1 / 22</td>
<td>-1 / 0</td>
</tr>
<tr>
<td>Temperature, °C</td>
<td>0 / 180</td>
<td>0 / 180</td>
<td>0 / 180</td>
<td>0 / 300</td>
<td>0 / 180</td>
<td>0 / 180</td>
<td>0 / 180</td>
<td>-20 / 180</td>
<td>0 / 180</td>
<td>0 / 180</td>
<td>0 / 180</td>
</tr>
</tbody>
</table>

**Continuous reactors**

- **CompactChem 10 l**
  - P = 0 Barg
  - T = 0 - 120 °C

- **CompactChem 5 l**
  - P = 0 barg
  - T = 20 - 120 °C

- **CompactChem lab 1 l**
  - P = 0 - 10 barg
  - T = 20 - 250 °C

- **Coflore 0.1 l**
  - P = 0 - 4 barg
  - T = 10 - 120 °C
The distillation column families.

**Batch columns**

- 280 l still pot
  - 30 t/p structured pack
  - -1 / 0 barg
  - 20 - 200 °C
- 70 l still pot
  - 20 t/p structured pack
  - -1 / 0 barg
  - 20 - 200 °C
- 30 l still pot
  - 20 t/p structured pack
  - -1 / 0 barg
  - 20 - 200 °C
- 10 l still pot
  - 40 t/p structured pack
  - -1 / 0 barg
  - 20 - 200 °C
- Several/5 l still pots
  - up to 30 sieve trays
  - -1 / 0 barg
  - 20 - 200 °C

**Continuous columns**

- 4 cm internal diameter
  - 30 sieve trays
  - -1 / 0 barg
  - 20 - 180 °C
Liquid liquid continuous extraction column.

The filter family.

Filtration equipment

- 200 l nutsche filter dryer
  - 0 - 4 barg
  - 20 - 120 °C

- 30 l basket centrifuge
  - 300 rpm

- 10 l nutsche filter
  - -1 - 0.4 barg
  - room temperature

4 cm internal diameter
Up to 30 equilibrium stages
10 - 100 °C