SWIFT Plus Demineraliser

The latest INDION Swift range comprises a family of automatic twin-bed demionisers incorporating state-of-the-art counter-flow ion exchange technology previously available only in large, custom designed plants.

The operational cycle of these rapid-regeneration, packaged units are controlled by volume throughput, which is pre-programmed in the PLC according to the type of feed water. The ion exchange resins are never fully exhausted ensuring optimum deionised water production at all times.

Regeneration takes just 35 minutes – after a minimum service cycle of two hours – minimising the need for both, a standby plant and the storage of large volumes of water. As regeneration of the cation and anion beds is simultaneous, the effluent streams are largely self-neutralising, reducing waste disposal costs and environmental impact.

INDION Swift is exceptionally compact, and is skid-mounted on a corrosion-resistant frame which also accommodates a stainless steel multi-purpose pump. In addition to optimising the performance of the plant during service and regeneration, the pump provides a number of recirculation options to maintain high quality of water in the treated waster tank.

Standard Features

- Mixed-bed quality water at minimum cost
- Incorporates an additional cation polishing stage for mixed-bed quality
- Average resistivity of purified water is 10 mg. ohm-cm & neutral pH
- Small footprint, no larger than a two vessel INDION Swift
- No additional regenerant chemicals required
- Swift Plus provides up to 330 m³/day on a feed water of 100 ppm total anion feed
- High chemical efficiency
- 35 minute regeneration time
- Near neutral effluent reduces disposal costs
- Stainless steel process pump
- Automatic control PLC
- Message display provides continuous readout of system status
- Flow display provides information on flow rates, throughput and number of regenerations
- Audible alarm and ‘no flow’ alarm circuit
- Can be connected to level sensors in chemical tanks to prevent regeneration when insufficient chemicals are available
- Minimal installation and commissioning costs

SWIFT Plus

INDION Swift Plus features an additional cation exchange stage which is accommodated on the standard Swift skid. As a result, Swift Plus produces mixed-bed quality water having resistivity of greater than 1 mg. ohm-cm for a minimum capital outlay. Running cost is low because no additional regenerant chemicals are required and no extra effluent is produced.
## Technical Specifications

### SWIFT Plus Range

<table>
<thead>
<tr>
<th>Model</th>
<th>P-1</th>
<th>P-2</th>
<th>P-3</th>
<th>P-4</th>
<th>P-5</th>
<th>P-6</th>
<th>P-7</th>
<th>P-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Flow (m³/h)</td>
<td>2.25</td>
<td>3.75</td>
<td>5.25</td>
<td>7.50</td>
<td>12.00</td>
<td>16.00</td>
<td>25.00</td>
<td>35.00</td>
</tr>
</tbody>
</table>

### TREATED WATER QUALITY

<table>
<thead>
<tr>
<th>Conductivity (µS/cm)</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
<th>1.0-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistivity (mg, ohm-cm)</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
<td>1-10</td>
</tr>
</tbody>
</table>

### CAPACITY DATA

<table>
<thead>
<tr>
<th>Output/Regeneration (m³)</th>
<th>14</th>
<th>21</th>
<th>28</th>
<th>35</th>
<th>63</th>
<th>84</th>
<th>155</th>
<th>192</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100 ppm Total Anion as CaCO₃, incl. SiO₂)</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
</tr>
</tbody>
</table>

### REGENERATION DATA

| Regeneration Time (Approx.) [mins] | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |

<table>
<thead>
<tr>
<th>Chemicals per Regeneration</th>
<th>7.4</th>
<th>11.0</th>
<th>14.8</th>
<th>18.4</th>
<th>33.2</th>
<th>44.2</th>
<th>84.9</th>
<th>108.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>32% Hydrochloric Acid [litres]</td>
<td>6.9</td>
<td>10.4</td>
<td>13.9</td>
<td>17.3</td>
<td>31.3</td>
<td>41.6</td>
<td>86.7</td>
<td>110.9</td>
</tr>
</tbody>
</table>

| Effluent Volume per Regeneration (m³) | 2.5 | 4.4 | 5.0 | 6.5 | 11.7 | 14.6 | 18.25 | 25.5 |

| Bulk Efficient pH | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 |

### Feed Water Data

- **Supply Quality**: Suitable potable water free from suspended solids, max temp 40°C
- **Data Connections**:
  - PVC Socket Union (mm): 32/25, 40/32, 50/37, 50/40, 80/50, 80/50, 100/80, 100/80
  - Drain Connections (mm): 20, 25, 32, 32, 40, 40, 50, 80, 80

### ELECTRICAL DATA

- **415V 3ph 50Hz Power Consumption (kw)**: 1.5, 1.5, 2.2, 3.0, 5.5, 5.5, 7.5, 11.0

### AIR SUPPLY DATA

- **Min./Max. Pressure (bar)**: 5.5/7.5, 5.5/7.5, 5.5/7.5, 5.5/7.5, 5.5/7.5, 5.5/7.5, 5.5/7.5, 5.5/7.5

### DIMENSIONS

- **Width (mm)**: 1600, 1600, 1700, 1700, 2080, 2080, 3500, 3500
- **Height (mm)**: 2000, 2000, 2100, 2100, 2500, 2500, 3000, 3000
- **Depth (mm)**: 900, 900, 950, 950, 1300, 1300, 2000, 2000
- **Headroom Required (mm)**: 1000, 1000, 1000, 1000, 1000, 1000, 1500, 1500

### WEIGHT (Approx.)

- **Delivered Wt. (kg)**: 457, 500, 1000, 1000, 1100, 1300, 1500, 1600
- **Working Wt. (kg)**: 625, 725, 1320, 1450, 1850, 2050, 2700, 3000

---

To the best of our knowledge, the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our Regional Offices for current product specifications.

ION EXCHANGE (INDIA) LTD.