Geno™ Type 2
Deionized Water System

Overview
The Geno™ Water Purification System is a complete, pre-engineered system designed specifically for Type 2 water applications. The reverse osmosis system uses pressure to separate contaminants out of supply water using a semipermeable membrane. The RO water is then fed through ion-exchange resins to deionize the water, creating Type 2 laboratory grade water.

Features & Benefits
- Low running costs.
- Integral boost pump.
- Novel recirculation loop extends life of membranes and cartridges.
- Choice of production rates.
- Choice of storage tank size: 30, 60 or 100 liters.
- Bench, wall or reservoir top mounting.
- Easy to change consumables with realistic costs.

Deionization / Ion-exchange
Geno™ Type 2  Deionized Water System

**Operation**

With the addition of the Endure Deionization packs, Geno™ takes RO water to the next level of purity. Geno provides laboratory grade, Type 2 water in three convenient production rates of 10, 20 or 50 liters per hour. Select the reservoir size to suit your requirements.

Geno combines all required technologies to produce Type 2 water in one box. The Endure DI packs are simple to change and long lasting.

**Application**

Geno is suitable for Type 2 / DI water usage of 10-600 liters per day. DI water is suitable for buffer and media production, sample and reagent diluents, general chemistry, protein electrophoresis, histology, cytology and spectrophotometry. The integral boost pump simplifies installation and avoids unexpected costs. Geno is fed directly from your municipal water supply.

Deionization is a process that removes ions from RO water with the use of synthetic resins. The ions are removed from the water through a series of chemical reactions. These reactions occur as the water passes through the ion exchange resin beads. Gradually, all unwanted ions are replaced by hydrogen and hydroxyl ions which combine to form pure water.

Deionization is the only process that can produce the quality required for Type 2 water.

**Specifications**

**UNIT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Production Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>7120-3500-210</td>
<td>10L / Hour</td>
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<tr>
<td>7120-3500-220</td>
<td>20L / Hour</td>
</tr>
<tr>
<td>7120-3500-250</td>
<td>50L / Hour</td>
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</tbody>
</table>

**Unit Dimensions**

- 20 in. (W) x 19 in. (H) x 11 in. (D)
- 510 mm (W) x 490 mm (H) x 290 mm (D)
- Shipping Weight: 55 lb (25 kg)

**Power Supply**

- 100-240 VAC; 50/60 Hz

**Water Quality**

- RO Water Quality: Type 2
- Organics and Particulate Rejection: >99%

**Feed Water Requirements**

- Flow Rate at Pressure
  - Geno 10 unit: 50 lph @ 10 kPa, 0.1 bar (0.22 gpm @ 1.5 psi) minimum
  - Geno 20 unit: 60 lph @ 10 kPa, 0.1 bar (0.26 gpm @ 1.5 psi) minimum
  - Geno 50 unit: 110 lph @ 10 kPa, 0.1 bar (0.48 gpm @ 1.5 psi) minimum
- Inlet pressure: 1.5 psi (10 kPa, 0.1 bar) minimum to 87 psi (600 kPa, 6.00 bar) maximum (NOTE: Minimum pressure must be maintained at the flow rate specified above)
- Temperature: 41°F to 95°F (5°C to 35°C)
- Minimum Feed Water Pressure: 1.5 psi (0.1 bar)
- Maximum Feed Water Pressure: 87 psi (6 bar)
- pH: 3.0-9.0
- Total Dissolved Solids: 800 ppm maximum
- Conductivity: <1400μS
- Chlorine concentration tolerance: <0.1 ppm max

**Waste Water Drain Requirements**

- 1/4 in. tube and 5/16 in. tube connection to 1-1/2 in. (38 mm) pipe minimum, with a minimum safety distance of 3/4 in. between tube end and waste water drain
- Floor level drain not to exceed 6.56 pipe feet (2000 mm) of the RO drain outlet

**Resistivity**

<table>
<thead>
<tr>
<th>Geno 10</th>
<th>Geno 20</th>
<th>Geno 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistivity</td>
<td>1-15MΩ·cm</td>
<td>1-15MΩ·cm</td>
</tr>
<tr>
<td>Production rate at 15°C</td>
<td>10 l/hr</td>
<td>20 l/hr</td>
</tr>
<tr>
<td>Overall rejection rate</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Rejection rate for bacteria</td>
<td>&gt;99%</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>Rejection rate for particles</td>
<td>&gt;99%</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>Feed water pressure</td>
<td>0.1-6 bar</td>
<td>0.1-6 bar</td>
</tr>
</tbody>
</table>

All specifications are subject to change without notice.