The 5800 Series is our largest One-Way Valve designed for breathing circuits in which extreme respiratory flow rates are generated and a low resistance to these flow rates is required. This valving principle utilizes three Rudolph Spiral-Type™ medium size 602021 Diaphragms, mounted in parallel in a disc assembly to enhance low resistance to flow and allow flow in one direction only. Sometimes this is referred to as a flow check valve. The applications are in human exercise and large animal research studies.

**SPECIAL FEATURES**

- Hans Rudolph, Inc. patented Spiral-Type™ Diaphragm  
  Not gravity dependent - functions in any position.  
  Very sensitive to low flow.  
  Non-sticking characteristics.  
  Excellent elastic memory.

- Transparent Outlet Port Tube for visibility of Diaphragm operation

- Threaded construction provides convenient disassembly

**Accessory To Complement This Product**

500134 - Large Connector - Reduces 1.750" (44.5mm) Bore Valve Port for 1.375" (35mm) bore tubing.

**PHYSICAL CHARACTERISTICS**

- Port Tube Size:  
  Outside Diameter (Inlet & Outlet the same) (mm) ... 50.8
  Inside Diameter (Inlet & Outlet the same) (mm) ... 44.5
  Weight (grams) ........................................... 240.0
  Length - overall (mm) .................................. 158.8
  Diameter - largest (mm) .................................. 76.2

**Resistance to Flow Graph**

<table>
<thead>
<tr>
<th>Flow Rate - LPM</th>
<th>Differential Pressure (dP) - mm water</th>
</tr>
</thead>
<tbody>
<tr>
<td>6800</td>
<td>10 20 30 40 50 60 70 80 90 100</td>
</tr>
<tr>
<td>5710</td>
<td>5 10 15 20 25 30 35 40 45 50</td>
</tr>
<tr>
<td>5610</td>
<td>10 15 20 25 30 35 40 45 50 55</td>
</tr>
</tbody>
</table>

Series 5710 and 5610 are shown as a comparison. Refer to their Data Sheet, 691125 for information.

**CLEANING**

This product requires special cleaning and care, which is described in our Cleaning, Disinfection, Sterilization and Maintenance Data Sheet 691197. Request this data sheet if not already in your possession. Make sure you fully comprehend this 691197 data sheet before proceeding with cleaning this Rudolph product.

**Caution!**

- Do Not expose this product to heat at or above a temperature of 45°C (113°F)

**GENERAL INFORMATION**

- Packaged: Individually polyethylene bagged and shipped clean, non-sterile.
- Designed and manufactured for multiple patient use.
- User specials & OEM inquiries invited.
**Exploded Assembly Drawing**

**TABULATION FOR EXPLODED ASSEMBLY DRAWING** describes the model and components, replacement part numbers with material description, protective finish and appearance.

### Giant One-Way Valve

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Port Number P/N</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>5800</td>
<td>112087</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Req'd.</th>
<th>Replacement Part Description &amp; Order Number</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>One</td>
<td>Outlet Port Tube</td>
<td>200437</td>
</tr>
<tr>
<td>2.</td>
<td>One</td>
<td>Diaphragm Stop, Giant</td>
<td>835964</td>
</tr>
<tr>
<td>3.</td>
<td>Three</td>
<td>Screws (3 per disc assembly)</td>
<td>811064</td>
</tr>
<tr>
<td>4.</td>
<td>One</td>
<td>Hold Down Disc</td>
<td>611158</td>
</tr>
<tr>
<td>5.</td>
<td>Three</td>
<td>Diaphragm, Medium Spinal-Type™</td>
<td>602021</td>
</tr>
<tr>
<td>6.</td>
<td>Three</td>
<td>Diaphragm Ring, (seat), Medium</td>
<td>611069</td>
</tr>
<tr>
<td>7.</td>
<td>One</td>
<td>Diaphragm Disc</td>
<td>611159</td>
</tr>
<tr>
<td>8.</td>
<td>One</td>
<td>Inlet Port Tube</td>
<td>200435</td>
</tr>
<tr>
<td><em>NA</em></td>
<td>Set</td>
<td>O-Ring set</td>
<td>200247</td>
</tr>
</tbody>
</table>

*O-Rings Sold As Set Only - Replacement parts sold with O-Rings assembled where applicable.

**Material Description, Protective Finish and Appearance.**


**ORDERING INFORMATION - Valve Model**

For information and order numbers of replacement parts refer to exploded drawing and tabulation.

**Giant One-Way Respiratory Valve**

P/N-Model No.

112087-5800 **Giant One-Way Valve**, Inlet & Outlet 2.000" (50.8mm)OD/1.750" (44.5mm)ID.

**ORDERING INFORMATION -- ACCESSORIES**

Refer to Data Sheet & Detailed Price List for details & replacement parts.

200134-7012 Connector/Reducer reduces 1.750" (44.5mm) ID port for 1.375" (35mm) ID tubing.

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**Important** — Assemble as shown, otherwise valve will not function properly. Test each valve after assembling for free flow in the directions indicated by arrows.

The Diaphragm Stop must be snap-fitted tightly into its bore groove to prevent it from moving. If it is not tight, remove the stop and expand it using your fingers or pliers until it fits tightly.

**Related Products**

Similar information on other size One-Way Respiratory Valves, is provided on other data sheets.