

# AUTO DENSI-FLOW<sup>®</sup>

## Density Gradient Fractionators

Models 451-7000 and 451-7200



The Auto Densi-Flow is a density gradient fractionator that provides a single apparatus for gentle removal of centrifuged sample layers and for depositing a preformed gradient smoothly and continuously. It provides a high degree of resolution in sensing the liquid surface, and can deposit or remove samples precisely, following within 0.004 inch (0.1mm) of the gradient surface.

For withdrawing sample layers after centrifugation, the instrument eliminates tube piercing by removing the gradient from the surface through the probe. If desired, the probe can be lowered through the gradient and withdrawal can begin at a particular layer other than the surface. In depositing gradients, a stainless steel probe, centered in the centrifuge tube, allows you to fill the tube in a non-turbulent manner without running the gradient down the side of the tube.

- **Integral single-channel peristaltic pump** is reversible and has full-range speed control from 1 to 500ml/hr. The pump may function independently of the fractionator for a variety of applications.
- **Sensor** detects and follows liquid surface for precise non-turbulent layering/withdrawal.
- **Safe to use**, the Auto Densi-Flow's operation does not involve tube piercing.
- **The universal centering jaws** accommodate any commercially valuable centrifuge tube.
- **Level gradients** ensure precise results. The leveling feet adjust the level. The spirit level indicates when the instrument is correctly positioned.



*Protecting your  
laboratory environment*

**LABCONCO<sup>®</sup>**

## Specifications

<b>Resolution</b>	0.1 mm (0.004 inch)	<b>Pump</b>	Peristaltic, two direction. May be used separately. Accommodates Tygon* or silicone rubber tubing up to 1/32" ID by 3/32" wall.								
<b>Withdrawal (or deposit) Rate</b>	Controlled by pump and tube size from 1 to 500ml/hr	<b>Pump Speed Control Switch</b>	Settings from 1 to 9								
<b>Approximate Flow Rates</b>	<table border="0"> <tr> <td><b>Tygon* tube size</b></td> <td><b>ml/hr</b></td> </tr> <tr> <td>1/32" ID</td> <td>1.0-108.0</td> </tr> <tr> <td>1/16" ID</td> <td>3.8-258.0</td> </tr> <tr> <td>3/32" ID</td> <td>7.6-504.0</td> </tr> </table>	<b>Tygon* tube size</b>	<b>ml/hr</b>	1/32" ID	1.0-108.0	1/16" ID	3.8-258.0	3/32" ID	7.6-504.0	<b>Pump Direction Switch</b>	Three positions, REV, OFF and FWD. Controls power to the integral peristaltic pump and the direction that the pump flows.
<b>Tygon* tube size</b>	<b>ml/hr</b>										
1/32" ID	1.0-108.0										
1/16" ID	3.8-258.0										
3/32" ID	7.6-504.0										
<b>Probe</b>	Stainless steel, hollow shaft. Opposite end accepts 1/32" ID tubing directly.	<b>Other Components</b>	Leveling feet, spirit level, centering jaws								
<b>Probe Holder</b>	Raises and lowers, holding the probe via a knurled screw. Includes a release button allowing the holder to slide on its track without reference to the level of the fluid.	<b>Range of Centrifuge Tube Diameters</b>	10mm to 35mm (tube not included)								
<b>Override Button</b>	Allows the probe to move in the direction set by the function switch without regard to the liquid level.	<b>Housing</b>	Anodized and painted aluminum								
<b>Function Switch</b>	Four positions: OFF, UP, STANDBY and DOWN. Controls power to the instrument and the direction of the probe movement.	<b>Dimensions</b>	6 1/2" w x 10 5/8" d x 12" h								
		<b>Shipping Weight</b>	15 lbs.								

## Ordering Information

### Catalog Number

451-7000	<b>Auto Densi-Flow, complete.</b> For operation on 115 volts AC, 50/60 Hz, 25 watts. Includes 3-wire cord and plug.
451-7200	<b>Auto Densi-Flow, complete.</b> For operation on 230 volts AC, 50/60 Hz, 25 watts. Includes 3-wire cord and plug.
426-1076	<b>Tygon* Tubing,</b> 1/32" ID, 50 feet.

\*Tygon® is a registered trademark of Norton Plastics.

For more information, please contact us:

ExpotechUSA

10700 Rockley Road  
Houston, Texas 77099  
USA

281-496-0900 [voice]

281-496-0400 [fax]

E-mail: sales@expotechusa.com

Website: www.ExpotechUSA.com