GOMCO
PORTABLE ASPIRATOR
MODELS 0405 & 4005
OPERATION, MAINTENANCE AND
SERVICE MANUAL
GENERAL INFORMATION:

The 0405 AND 4005 Gomco Portable Pumps are designed for general suction use in hospitals or clinics and are latex free.

OPERATING PRINCIPLE:

The negative and positive pressures of a rotary pump are developed by mounting the rotor off center in relation to the inside diameter of the pump housing. The four carbon slides in the rotor wipe past two portholes in a clockwise rotation. This action increases and decreases the cubic content of the air in the pump head, and thereby, produces the negative and positive pressures.

OPERATING PROCEDURE:

1) The “On-Off” switch should be in the “Off” position.
2) Plug the line cord into a grounded electrical outlet, making sure that it is the same voltage as indicated on the unit nameplate. The receptacle should be marked “Hospital Grade” to insure grounding.
3) Be sure the length of tubing from the bottle to the bacteria filter is dry.
4) Push the “On-Off” switch to the “On” position.
5) Check the degree of vacuum by pinching off the patient tube. The amount of vacuum, in inches of mercury, will register on the vacuum gauge. To increase the vacuum, turn the regulator needle clockwise. To decrease the vacuum, turn the regulator needle counter-clockwise.
6) Your pump is now ready for patient use.

⚠️ WARNING: Do not block bottom or back air vents. Unit may not restart if run for extended periods of time without flow.

⚠️ WARNING: Do not use in the presence of flammable anesthetics.

SPECIFICATIONS:

Vacuum Range: 0-25 in. HG MIN. @ 115 Volts

Flow Rate: 0-30 LPM MIN. @ 115 Volts

Electrical Requirements: 115 Volts, 60 Hz (01-12-0405 & 01-12-4005)

Fuses: For 115 Volts, 60 Hz, use 4 Amp Slow Blow Fuse

Motor and Pump Description: 1/10 H.P. thermally protected, split phase motor, oil-less, direct drive rotary vane pump.

Dimensions: 12.5” wide x 10” deep x 9.5” tall with handle

Weight: 14.5 Lbs.

Duty: Continuous duty
THE HIGH EFFICIENCY BACTERIA FILTER:

The high efficiency bacteria filter is custom engineered to prevent fluid and aerosol contamination of mobile suction units. This filter features a hydrophobic, microporous membrane which filters air with maximum efficiency (0.3 micron particles in air), while blocking the flow of aqueous fluids and aerosol contaminants. The Gomco high efficiency filter protects against suction pump contamination in the case of canister overflow as it prevents the overflow from reaching the pump.

NOTE: Extended use of alcohol or solvents may reduce the hydrophobic properties of the microporous membrane.

FILTER MAINTENANCE:

The Gomco filter should be replaced monthly or when a reduction of the flow rate is noticed.

FILTER REPLACEMENT:

Unscrew the filter from the filter connection fitting by hand, turning the filter in a counter-clockwise direction. Screw a new filter into the fitting by turning the filter in a clockwise direction. Tighten only finger tight.

NOTE: Care must be taken when replacing the filter to prevent thread damage due to cross threading and over tightening.

MUFFLER:

The unit has a cylinder type filter-muffler. The cotton in the cylinder type muffler should be replaced when discolored. Remove the cap and remove the old cotton. Replace with clean cotton. Caution should be used to pack the cotton loosely as the suction power of the pump will be greatly reduced if the cotton is too tightly packed inside the muffler tube. Pack the muffler while the ON/OFF switch is in the “OFF” position, and the unit has been unplugged from the electrical outlet.

PUMP FAILURE:

A unit that has been slightly flooded or becomes sluggish will show a lower degree of vacuum or pressure. The unit may also become noisy and run unusually hot. These difficulties may usually be corrected by flushing.

FLUSHING THE PUMP:

Should excessive dirt, foreign particles, and/or moisture be permitted to enter the pump, the vanes may stick or break. Flushing the pump should take care of this condition.

⚠️ CAUTION: Use eye protection and flush in a well-ventilated area.

⚠️ CAUTION: Do not use petroleum base compounds, acids, caustics, or chlorinated solvents to clean or lubricate any parts. It will reduce the service life of the pump. Use only water-base solvents for cleaning.

PUMP REMOVAL:

1) Place the ON/OFF switch in “OFF” position.
2) Remove the power cord from the power source.
3) Remove the upper housing.
4) Disconnect rubber tubing from pump.
5) Remove the pump ground wire from the chassis ground screw.
6) Remove the power cord ground wire from the chassis ground screw.
PUMP REMOVAL (CONTINUED):

7) Disconnect the two (2) pump power wires from the terminal block.
8) Remove the four (4) motor mounting hex nuts from the pump mounting plate.
9) Lift the pump from the base.
10) Install in reverse order.

FEATURES: MODEL 0405:

The 0405 Gomco Portable Pump, as standard equipment is supplied with:

1) One (1) 1200 ML (1/2 gal) glass collection container with overflow protection cap.
2) One (1) disposable tubing package.
3) Compact pump with carrying handle, illuminated “On-Off” switch, vacuum gauge, vacuum regulator, and hospital grade plug.
4) Bacteria filters, package of 3.

SET-UP:

The 1200ml Glass Collection Container has an overflow protection device called the Cap and Float Assembly. When collected patient drainage fluids reach the last graduation on your collection bottle, the vacuum supply to the collection bottle is shut off by the cap and float assembly.

1200ML GLASS CONTAINER:

1) Check the bottle top edges for nicks. If the bottle top is nicked it will not seal.
2) Check that the cap gasket is properly positioned inside the cover.
3) Check that the float moves freely.
4) Screw the cover assembly securely onto the bottle, making sure that the gasket seals.
5) Insert the collection container into the bottle well.
6) Connect the 18” length of tubing, enclosed in the tubing package, to the bacteria filter and to the vertical fitting on the cap and float assembly.
7) Connect the 72” length of tubing to the metal tube on the cap and float assembly that is at an approximately 90 degree angle.

GLASS COLLECTION BOTTLE AND CAP ASSEMBLY STERILIZATION:

1) Remove the cap assembly from the bottle.
2) Dispose of drainage fluids and materials in the bottle (Per local regulations).
3) Soak the bottle and cap assembly in a warm detergent solution. Wash all the parts with a nylon bristle brush, rinse thoroughly with water and acetate.
4) Autoclave at 250 degrees F for 15 minutes following the autoclave manufacturer’s recommended procedure.

⚠️ CAUTION: Do not flash autoclave the glass collection bottle. If desired, sterilize with ethylene oxide gas. Following manufacturer’s directions for recommended procedure.

⚠️ CAUTION: Federal law restricts this device to sale by or on the order of a physician.
FEATURES: MODEL 4005:

The 4005 Gomco Portable Pump, as standard equipment is supplied with:

1) One (1) 1500 ML disposable collection container with overflow protection cap.
2) One (1) disposable tubing package.
3) Compact pump with carrying handle, illuminated “On-Off” switch, vacuum gauge, vacuum regulator, and hospital grade plug.
4) Bacteria filters, package of 3.

SET-UP:

When using the 1500ml Disposable Collection Container, your Gomco Pump has an overflow protection device. The DCU canister has a self-sealing material. When the filter comes in contact with moisture, the self-sealing material immediately stops flow to the patient and prevents any fluids from getting into the system.

1500ML DISPOSABLE CONTAINER:

1) Make sure the filter shut-off is in place in the underside of the lid.
2) Place the bottle on a flat surface and snap the lid on firmly.
3) Connect the 72” length of tubing to the connector on the lid marked “PATIENT”.
4) Connect the 18” length of tubing to the connector on the lid marked “VACUUM”.
5) Insert the collection container into the bottle well.
6) Connect the other end of the short tubing to the barbed end of the bacteria filter.

TROUBLE SHOOTING:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>PROBABLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump will not run when switch is pushed “ON”</td>
<td>1. Power source is bad or incorrect voltage</td>
<td>1. Check power outlet.</td>
</tr>
<tr>
<td></td>
<td>2. Overheat due to vacuum flow occluded for and extended period</td>
<td>2. Let cool</td>
</tr>
<tr>
<td></td>
<td>3. Fuse blown</td>
<td>3. Replace fuse</td>
</tr>
<tr>
<td></td>
<td>4. Bacteria filter is clogged</td>
<td>4. Replace filter</td>
</tr>
<tr>
<td></td>
<td>5. Motor burned out</td>
<td>5. Replace motor</td>
</tr>
<tr>
<td>Low suction or low pressure</td>
<td>1. Loose bottle cap or tubing connection</td>
<td>1. Check all connections</td>
</tr>
<tr>
<td></td>
<td>2. Pump performance is low.</td>
<td>2. See Specification and Maintenance &amp; Service Sections</td>
</tr>
<tr>
<td></td>
<td>3. Bacteria filter is clogged</td>
<td>3. Replace filter</td>
</tr>
<tr>
<td></td>
<td>4. Vacuum regulator or pressure regulator is leaking</td>
<td>4. Replace needle</td>
</tr>
<tr>
<td>Pump runs, but no suction or pressure</td>
<td>1. Disconnect vacuum or pressure line</td>
<td>1. Check all tubing</td>
</tr>
<tr>
<td></td>
<td>2. Bacteria filter is clogged</td>
<td>2. Replace filter</td>
</tr>
<tr>
<td></td>
<td>3. Collection unit full</td>
<td>3. Empty or replace collection unit</td>
</tr>
</tbody>
</table>

**For service or service questions on your Gomco Pump please call our Technical Support Center at 1-800-411-5136.
## REPLACEMENT PARTS LIST:

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-90-2578</td>
<td>2 ½&quot; FLUSH MOUNT VACUUM GAUGE</td>
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</tr>
<tr>
<td>01-90-4005</td>
<td>REGULATOR ASSEMBLY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>VACUUM REGULATOR BODY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>REGULATOR NEEDLE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>JAMB NUT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WASHER, 7/16 ALT. TWIST</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>REGULATOR SPRING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>KNOB</td>
<td>1</td>
</tr>
<tr>
<td>01-90-4006</td>
<td>ON-OFF SWITCH, ASSEMBLY</td>
<td>1</td>
</tr>
<tr>
<td>01-90-4007</td>
<td>KNOB, SOFT TOUCH, .75 DIAMETER</td>
<td>3</td>
</tr>
<tr>
<td>01-90-2000</td>
<td>TUBING KIT 18&quot; &amp; 72&quot; PIECES</td>
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</tr>
<tr>
<td>01-90-3100</td>
<td>BACTERIA FILTER, PACKAGE OF 3</td>
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</tr>
<tr>
<td>01-90-4009</td>
<td>FAN ASSEMBLY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>FAN, 115V, 4.69 SQ. X 1&quot;</td>
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</tr>
<tr>
<td></td>
<td>SCREW, 6-32 X 1-1/4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>6-32 KEP NUT</td>
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<tr>
<td></td>
<td>WIRE ASSEMBLY, BLACK</td>
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</tr>
<tr>
<td></td>
<td>WIRE ASSEMBLY, WHITE</td>
<td>1</td>
</tr>
<tr>
<td>T12685</td>
<td>CORD, POWER, HOSPITAL GRADE PLUG, IEC (115V)</td>
<td>1</td>
</tr>
<tr>
<td>01-90-4010</td>
<td>FUSE, 4 AMP Slow Blow</td>
<td>4</td>
</tr>
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</table>

(FOR 110/115 VOLT UNITS)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>20-08-0003</td>
<td>DISPOSABLE COLLECTION UNIT</td>
<td>1 CASE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(48 PER CASE)</td>
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<tr>
<td>22-10-0002</td>
<td>½ GALLON GLASS COLLECTION BOTTLE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>COMPLETE WITH CAP AND FLOAT ASSEMBLY</td>
<td></td>
</tr>
<tr>
<td>22-93-0002</td>
<td>½ GALLON GLASS COLLECTION BOTTLE</td>
<td>1 CASE</td>
</tr>
<tr>
<td></td>
<td>(BOTTLE ONLY)</td>
<td>(6 PER CASE)</td>
</tr>
<tr>
<td>22-10-0008</td>
<td>CAP AND FLOAT ASSEMBLY</td>
<td>1</td>
</tr>
</tbody>
</table>
Figure 1 - 1500 ML Disposable Collection Canister

Figure 2 - 1200 ML Glass Collection Bottle
Figure 3 - Gomco Portable Wire Diagram
**LIMITED WARRANTY:** Allied warrants for a period of one year from date of shipment that the products manufactured by Allied are free from defects in material and workmanship. Allied makes no warranty with respect to products manufactured by others and furnished hereunder, provided, however, Allied shall extend to Buyer any warranties which it received from such vendors. Items for repair under warranty will be covered for parts by Allied, when returned prepaid to Allied's Repair Department. Labor and travel will be charged to the Buyer for repairs made outside Allied's Repair Department.

In the event of breach of any warranty hereunder, Allied's sole and exclusive liability shall be its option either to repair or replace F.O.B. destination any defective products, or to accept return of such product and refund the purchase price; in either case provided that written notice of such defect is given to Allied within warranty period of product purchased, that the product is found by Allied to have been defective at the time of such shipment, that the product has been installed and/or operated in accordance with Allied's instructions, that no repairs, alterations or replacements have been made by others without Allied's written approval, and that Buyer notifies Allied in writing within forty-five (45) days after the defect becomes apparent and promptly furnishes full particulars in connection therewith, and provided further that in no event shall the aggregate liability of Allied in connection with breach of any warranty or warranties exceed the purchase price paid for the product purchased hereunder. Allied may, at its option, require the return of any product, transportation and duties prepaid, to establish any claim of defect made by Buyer. Allied will not accept and shall have no responsibility for products returned without its prior written consent and Allied will not assume any expense or liability for repairs to products. In the event Allied elects to replace a defective product, costs of installation, labor, service and all other costs to replace the product shall be the responsibility of Buyer. **EXCEPT AS EXPRESSLY STATED HEREIN, ALLIED MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, AND DOES NOT WARRANT THAT THE PRODUCTS ARE MERCHANTABILITY OR FIT FOR ANY PARTICULAR PURPOSE.**

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Allied Healthcare Products, Inc.

1720 Sublette Avenue
St. Louis, MO 63110
Telephone:  314-771-2400
Toll Free:  800-444-3954
Global Support of Life SM

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