MODEL P90 SEALLESS DRUM PUMPS
FOR SAFE AND FAST TRANSFER OF CHEMICALS • SOLVENTS • CORROSIVE LIQUIDS IN HAZARDOUS OR NON HAZARDOUS ENVIRONMENTS

In Use The World Over

- SEALLESS
- EMPTIES 55 GALLON DRUMS IN LESS THAN 2 MINUTES
- SELF PRIMING
- HIGH POWER DOUBLE INSULATED 1150 WATT MOTOR
- EASY MAINTENANCE, FIELD REPAIRABLE
- ONE PIECE TUBE INSURES SAFE, LEAKPROOF OPERATION
- CHOICE OF POLYPROPYLENE, KYNAR®, OR STAINLESS STEEL PUMPS
Pump Tube Features:

• Polypropylene, Kynar or stainless steel pump construction
  Choose from 3 materials of construction to transfer most corrosive liquids.

• Sealless construction
  Eliminates the major cause of pump failure.

• Can run dry
  No costly damage to pump if it is run dry for short periods after drum or container has been emptied.

• 1.66" (42mm) tube diameter
  Designed to fit any bung to empty any drum or carboy around the world.

• More effective vapor seal

• High quality design
  One piece tube construction, fewer pump parts and new bearing cup ensure reliability and extends pump life. New P90 pump tube is lighter and stronger than the P80 pump tube.

• Self priming
  A flip of the switch and pumping action begins immediately.

• Quick draining
  Pump drains quickly when removed from liquid.

• Wide vane axial impeller
  Efficiently moves high viscosity and specific gravity liquids up to 4000 ssu.

• High flow
  Empties a 55 gallon drum in less than 2 minutes. Empties a 500 gallon tank in less than 13 minutes.

• Easy to maintain
  New bearing cup design allows fast, inexpensive, easy to do repairs. No special tools needed.

Motor Features:

• High power, double insulated 1150 watt motor
  Protected in a corrosion resistant, high-strength, impact resistant case.

• Large handle grip
  Ensures grasp when wearing bulky safety rubber gloves.

• Impact resistant housing
  Holds up to rough handling.

• 15 foot cord
  Motor is equipped with a heavy duty oil and acid resistant electrical cord and molded plug.

• On/Off switch with safety reset circuit breaker
  Unlike hazardous automatic restart units, the motor will not restart until on/off switch resets the circuit breaker. Momentary switches are available.

• Continuous duty rated
  The powerful electric motor will pump liquids continuously drum after drum without overloading the motor, even when pumping high specific gravity solutions.

• Hazardous duty and air motor also available
  For safe transfer of hazardous, flammable or combustible liquids.

• Lightweight
  Weighs only 9 pounds.
SELECT FROM 3 HIGH POWER INTERCHANGEABLE MOTORS

High-Power Double Insulated
1150 Watt Motor
Lightweight, impact resistant and easy to handle, this motor is the most widely used. Select this motor when transferring liquids that are non-hazardous. Can be used with any P90 pump tube.

Hazardous Duty Electric Motor
UL Listed, 650 watt motor is specifically designed to be used with the Sethco stainless steel P90 pump to safely transfer hazardous flammable or combustible liquids. Can also be used with Sethco Kynar P90 pump to transfer non-flammable chemicals in a hazardous environment.

Hazardous Duty Air Motor
Can be used in place of electric motor when desired. Completely interchangeable on any P90 pump. Recommended for use in areas where flammable vapors or other hazardous duty conditions exist.

POLYPROPYLENE
Economical and Dependable
Wetted Parts
Polypropylene, Hastelloy C®, Tefzel®, Viton®.
Typical Applications
Hydrochloric acid, sulfuric acid, nitric acid, most electroplating solutions, sodium hydroxide, alkaline solutions, chromic acid and other non flammable solutions.
Temperature Limits
32° to 130°F (0° to 55°C)

STAINLESS STEEL
Heavy Duty design for extended life
Wetted Parts
Stainless Steel, Teflon®, Kynar®.
Typical Applications
Alkalis, aqueous caustic, light oils, and solvents.
Temperature Limits
0° to 250°F (-18° to 121°C)

KYNAR®
Superior corrosion resistance, withstands higher temperature.
Wetted Parts
Kynar®, Hastelloy C, Tefzel®, Viton®.
Typical Applications
Strong mineral and oxidizing acids, alkalis, metal etchants, chlorine, aqueous caustic, organic and non-flammable solvents.
Temperature Limits
0° to 250° F (-18° to 121°C)
THE P-90 DRUM PUMP PROVIDES HIGH VOLUME PUMPING TO 35 GPM (132 LPM)

Flow curve for **Polypropylene or Kynar Pump Tube** with standard 1150 watt electric motor, air motor or hazardous duty motor.

Flow curve for **Stainless Steel Pump Tube** with electric motor, air motor and hazardous duty electric motor.

**ACCESSORIES**

**Flow Totalizer**
Accurately measures the flow of liquid. No more guessing. Easy to install and runs on 2 AAA batteries.

**Hand Flow Regulator**
Safe, leakproof, automatic flow control. The “easy squeeze” hand lever permits controlled flow of corrosive liquids. Sethco hand flow regulators are optional and available in polypropylene, aluminum or stainless steel construction.

**Vinyl Hose**
Clear, pliable, corrosion resistant. For use with most acids and alkalies and water base solutions. 10 ft. of vinyl hose is supplied with each complete polypropylene P90 pump and motor.

**Bottom Inlet Strainer**
Fits over pump tube to prevent debris from entering pump. Stainless steel pump tube has built in strainer. (Supplied with each complete P90 pump and motor).

**Storage Hook**
Allows the pump to be safely stored in an upright position out of the way, and insures complete drainage after use. (Supplied with each complete P90 pump and motor).

**Bung Adapter**
Holds pump tube securely in the bung opening (optional).

**Bonding Wire**
Required when pumping flammables to bond and ground equipment.

**NEW!**
# Pump and Motor Specifications

## PUMP TUBES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Tube Length* (in / cm)</th>
<th>Wetted Materials</th>
<th>Tube Diameter (at widest point) (in / cm)</th>
<th>Discharge (in / cm)</th>
<th>Maximum Flow (water at 70°F / 21°C)</th>
<th>Maximum Specific Gravity**</th>
<th>Maximum Viscosity** (reduced flow and pressure)</th>
<th>Net Weight (lbs. / kg)</th>
<th>Shipping Weight w/o Hose (lbs. / kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P90H-30</td>
<td>30 / 76</td>
<td>Polypropylene, Tefzel®†</td>
<td>1-2/3” / 4.2 cm</td>
<td>for 1” I.D. Hose</td>
<td>35 GPM / 132 LPM</td>
<td>39 ft. / 1189 cm</td>
<td>1.86</td>
<td>4000 SSU (850 cks)</td>
<td>1.75 / .80</td>
</tr>
<tr>
<td>P90H-40</td>
<td>40 / 101</td>
<td>Tefzel®†, Hastelloy C®, Viton®</td>
<td>1-2/3” / 4.2 cm</td>
<td>for 1” I.D. Hose</td>
<td>35 GPM / 132 LPM</td>
<td>39 ft. / 1189 cm</td>
<td>1.86</td>
<td>4000 SSU (850 cks)</td>
<td>2.75 / 2</td>
</tr>
<tr>
<td>P90H-50</td>
<td>50 / 127</td>
<td>Hastelloy C®, Hose</td>
<td>132 LPM</td>
<td>11.5 m</td>
<td>2.75 / 1.25</td>
<td>6 / 2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P90H-60</td>
<td>60 / 152</td>
<td></td>
<td>1-2/3” / 4.2 cm</td>
<td>for 1” I.D. Hose</td>
<td>35 GPM / 132 LPM</td>
<td>39 ft. / 1189 cm</td>
<td>1.86</td>
<td>4000 SSU (850 cks)</td>
<td>3.25 / 1.5</td>
</tr>
</tbody>
</table>

** For other lengths consult factory

** With electric motor drive

† Available with Nylon in place of Teflon for nuclear service.

## STAINLESS STEEL PUMP TUBE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Tube Length* (in / cm)</th>
<th>Wetted Materials</th>
<th>Tube Diameter (at widest point) (in / cm)</th>
<th>Discharge (in / cm)</th>
<th>Maximum Flow (water at 70°F / 21°C)</th>
<th>Maximum Specific Gravity**</th>
<th>Maximum Viscosity** (reduced flow and pressure)</th>
<th>Net Weight (lbs. / kg)</th>
<th>Shipping Weight w/o Hose (lbs. / kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P90S-40S</td>
<td>40 / 101</td>
<td>SS-316, Carp. 20, PVDF Teflon®</td>
<td>1-3/4” / 4.4 cm</td>
<td>Both 3/4” (1.9 cm) FNPT &amp; 1-1/4” ID Hose</td>
<td>35 GPM / 132 LPM</td>
<td>40 ft. / 11.5 m</td>
<td>1.86</td>
<td>4000 SSU (850 cks)</td>
<td>8 / 3.6</td>
</tr>
</tbody>
</table>

## MOTORS

<table>
<thead>
<tr>
<th>Motor</th>
<th>Description</th>
<th>Net Weight (lbs. / kg.)</th>
<th>Shipping Weight lbs. / kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Air Drive-100 PSI @ 18 CFM With inlet air valve for motor speed and flow control, and muffler for quiet operation</td>
<td>2 lbs. / .9 kg.</td>
<td>5 lbs. / 2.2 kg.</td>
</tr>
<tr>
<td>B</td>
<td>Electric - 115V, 50/60Hz, 1 ph, ODP, double-insulated with 15 feet of line cord, plug and on/off switch with built-in safety manual reset circuit breaker. Motor cannot accidentally restart after breaker trips. Switch must be manually turned back on to reset breaker.</td>
<td>7 lbs. / 3.2 kg.</td>
<td>9 lbs. / 4 kg.</td>
</tr>
<tr>
<td>C</td>
<td>Electric - 230V, 50/60Hz, 1 ph. ODP, as per “B” above. Plug is not provided.</td>
<td>7 lbs. / 3.2 kg.</td>
<td>9 lbs. / 4 kg.</td>
</tr>
<tr>
<td>E</td>
<td>Electric-Hazardous Duty U.L. Listed “Portable” Class 1, Groups C and D, 120V, 60Hz, 1 ph, with built-in-switch, and internal thermal overload, 15 feet of 3-wire grounded cord and easy carry handle.</td>
<td>19.5 lbs. / 8.8 kg.</td>
<td>21.5 lbs. / 9.7 kg.</td>
</tr>
</tbody>
</table>

## WARRANTY

180 day warranty against defective parts and workmanship. The standard warranty does not apply when equipment is used contrary to factory recommendations.

Since the policy of Sethco is one of continual improvement, we reserve the right to change design or materials at any time without giving notice or creating any obligation to previous or future customers.
Plating Shops
- Transferring nitric, sulfuric, muriatic and hydrofluoric acid.
- Emptying spent metal finishing acids and alkalies at 32°F to 130°F.
- Emptying liquid nickel sulfate from 55 gallon drums into smaller pails.
- Transferring cyanide zinc @ 90°F safely and economically.
- Plating solutions at room temperature pumped 20 feet across and 5 feet up.
- Transferring phosphoric, nitric and sulfuric acids into small tanks.
- Mixing and transferring aluminum brighteners.
- Emptying copper, cadmium and silver cyanide; ferric chloride, copper sulfate, tin lead, ferric chloride, copper fluoborate and nickel sulfamate at 65° to 150°F.
- Reactivating anodizing solution with sulfuric and chromic acids.
- Pumping out hot cleaners with alkali.

Electronics & Printed Circuits
- Pumping acids at 70° to 130°F for printed circuit fabrication.
- Transferring acids into tanks 10-15 feet away.
- Handling ferric chloride and sodium persulfate for etching.

Industrial Chemicals
- Packaging acids and alkalies in bottles.
- Pumping acids up to the floor above.
- Transferring viscos wool oil from drum to hoppers.
- Pumping out hot cleaners with alkali.
- Filling small containers of industrial chemicals from carboys and drums for retail sales.
- Mixing and transferring hot caustics.
- Emptying 55 gallon drums of hydrofluoric acid without hoisting them into 5 gallon containers.

Grain Processing
- Moving surfactants at 90°F in grain processing.

Photo Processing
- Transferring ammonia thiosulphate for photo processing.
- Pumping ethylene glycol, methanol, ammonium, thyocyanate, NaOH.

Latex and Rubber
- Transferring styrene across the shop.
- Transferring from drums to mixer in water paint manufacture.
- Pumping 20% muriatic acid at 80°F for rubber processing.

Waste and Water Treatment
- Pumping treatment chemicals, caustic soda, sodium hypochlorite, sodium metabisulfite and sulfuric acid into reagent tanks.
- Pumping ferric chloride for flocculation of solids.

Pulp and Paper Manufacturing
- Pumping sulphuric acid up 8’.
- Transferring ammonia in processing pulp and paper.
- Moving ammonia and latex 15’ across plant and up to 10’ in paper and pulp processing.

Electrical Power and Utility Companies
- Transferring acids from drums and carboys.
- Handling 35% hydrazine for electric generators.
- Hazardous chemical disposal from 55 gallon drum to a reactor tank.

Plus hundreds of other enthusiastic replies from hospitals, institutions, laboratories, universities, photo processors, chemical suppliers, industrial cleaner packagers, food processors, beverage canners, and the manufacturers of mirrors, automotive parts, aerospace components, fiberglass and more.