Air-Driven, High Flow, High Pressure Liquid Pump
Series AHL33-2D

Technical Data: Liquid Side Specifications
- Service: Oil, Water or Water/Oil mixture and other fluids depending on material compatibility
- Maximum Outlet Pressure: 6,700 PSI (462 bar)
- Air to Liquid Pressure Ratio: 1:67
- Isolation Chamber (prevents process contamination of air section): Standard
- Volume Displacement Per Stroke: 15.3 in³ (250.7 cm³)
- Dual Inlet Connections: 1” FNPT
- Dual Outlet Connections: 1/2” FNPT
  (Contact Parker Autoclave Engineers for Additional Options)

Technical Data: Air Side Specifications
- Air Drive Pressure Range: 20-100 psi (1.4-6.9 bar) *See note
- Nominal air pressure required for 6,700 PSI (462 bar) output pressure is 100 psi (6.9 bar)
- Inlet Port: 1” female FNPT
- Pilot Port: 1/8” female FNPT
- Exhaust Ports (mufflers removed): 1” female BSP
- Air Consumption @ 50 PSI air (0 PSI liquid): 290 SCFM
- Prelubricated at Factory

General Specifications
- Operating Temperature: 0-140º F (-18º to 60º C)
- Net Weight: 160 lbs (73 kg)
- Pressure Head: 15-5 PH Stainless Steel
- Stainless steel plunger utilizing a proprietary multi-layer carbon based coating with diamond like carbon exterior layer - 3 times the hardness of stellite with a coefficient of friction equal to/less than PTFE
- Check Valve Glands: 316 Stainless Steel
- Liquid Seal: See Ordering Guide for options
- Air Drive Seals: Buna N

Note: Maximum air drive pressure is limited by maximum output pressure.
**Ordering Guide:**
For complete information on available pump options, contact Parker Autoclave Engineers.

Typical catalog number: **AHL33-2DSCUV**

**Pump Type / Size / Ratio**

AHL =
- High Flow Liquid High Pressure Pump
- 10" Dual Piston Air Drive
- 1:67 Air-to-Liquid Pressure Ratio
- Maximum 6,700 psi (462 bar)
- Double Acting Liquid Heads

**Liquid Inlet Location**
*S = Side

**Isolation Chamber**
*C = Included

**Liquid Seal Materials†**
*UV = Urethane U-Cup and Viton O-Rings
UE = Urethane U-Cup and EPDM O-Rings
UB = Urethane U-Cup and Buna-N O-Rings
TV = Thermoplastic Polyester U-Cup and Viton O-Rings
TE = Thermoplastic Polyester U-Cup and EPDM O-Rings
TB = Thermoplastic Polyester U-Cup and Buna-N O-Rings
TC = Thermoplastic Polyester U-Cup and Perfluoroelastomer O-Rings
C = Perfluoroelastomer O-Rings

**Liquid Flow Rate vs. Outlet Pressure:**

**AHL33-2DSC Series**

### Approximate air drive pressure: 100 psi

<table>
<thead>
<tr>
<th>Pressure (PSI)</th>
<th>Pressure (bar)</th>
<th>Flow (gpm)</th>
<th>Flow (liter/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>7.6*</td>
<td>28.8 *see note 2</td>
</tr>
<tr>
<td>1000</td>
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<td>5000</td>
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<tr>
<td>6000</td>
<td>414</td>
<td>1.8</td>
<td>6.9</td>
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### Nominal Liquid Pressure (Stalled)

<table>
<thead>
<tr>
<th>Air Drive Pressure</th>
<th>Liquid Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>bar</td>
</tr>
<tr>
<td>20</td>
<td>1.4</td>
</tr>
<tr>
<td>30</td>
<td>2.1</td>
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<tr>
<td>40</td>
<td>2.8</td>
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<tr>
<td>50</td>
<td>3.4</td>
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<tr>
<td>60</td>
<td>4.1</td>
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<tr>
<td>70</td>
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<tr>
<td>80</td>
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<tr>
<td>90</td>
<td>6.2</td>
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<tr>
<td>100</td>
<td>6.9</td>
</tr>
</tbody>
</table>

**Notes:**
1. Actual flow rates will vary depending on air flow capacity, downstream flow restrictions, and fluid type.
2. Flow value at approximately 50 psi air drive pressure.
**Air-Driven, High Pressure Liquid Pump - Series AHL33-2D**

**Technical Specifications & Performance Data**

**Dimensional Data:**

**Front View**

- **1/8" NPT Thread Spool Air Inlet on Middle Plate**
- **Liquid Inlet Female 1" NPT**
- **Liquid Outlet Female 1/2" NPT**
- **1/8" NPT Thread**
- **Spool Air Inlet Opposite Main Air Supply**
- **Isolation Drain Port**
- **Isolation Drain Port**

**Side View**

- **1/8" NPT Thread**
- **Spool Air Inlet**
- **Slot Diameter Type (4) PLCS**
- **Slot Spacing**: 7.00 (177.80), 17.55 (445.71)
- **See Note**

**Note:**
- Each Mounting Bracket includes (2) x 0.50" (12.7) Slots for 7/16" Bolts.
- Spool air tubing not shown for clarity.
- All dimensions are for reference only and are subject to change without notice.
- Primary Dimensions: Inches
- Secondary Dimensions: (Millimeters)
Accessories Available:

- Air Control Packages
- Pneumatic Pilot switches and Solenoid Valves
- Stroke Counter
- Relief Valve / Safety Heads
- Complete line of High Pressure Components - Valves, Fittings & Tubing
- Spare Parts
- Service

For complete information on available high pressure accessories, please contact Parker Autoclave Engineers.
Air-Driven, High Flow, High Pressure Liquid Pump
Series AHL66-2D

Double-Acting, Dual Piston Air Drive

**Technical Data: Liquid Side Specifications**
- Service: Oil, Water or Water/Oil mixture and other fluids depending on material compatibility
- Maximum Outlet Pressure: 13,300 PSI (917 bar)
- Air to Liquid Pressure Ratio: 1:133
- Isolation Chamber (prevents process contamination of air section): Standard
- Volume Displacement Per Stroke: 7.8 in³ (127.8 cm³)
- Dual Inlet Connections: 1/2” FNPT
- Dual Outlet Connections: 1/2” FNPT
  (Contact Parker Autoclave Engineers for Additional Options)

**Technical Data: Air Side Specifications**
- Air Drive Pressure Range: 20-100 psi (1.4-6.9 bar) *See note
- Nominal air pressure required for 13,300 PSI (917 bar) output pressure is 100 psi (6.9 bar)
- Inlet Port: 1” female FNPT
- Pilot Port: 1/8” female FNPT
- Exhaust Ports (mufflers removed): 1” female BSP
- Air Consumption @ 50 PSI air (0 PSI liquid): 290 SCFM
- Prelubricated at Factory

**General Specifications**
- Operating Temperature: 0-140°F (-18° to 60°C)
- Net Weight: 160 lbs (73 kg)
- Pressure Head: 15-5 PH Stainless Steel
- Stainless steel plunger utilizing a proprietary multi-layer carbon based coating with diamond like carbon exterior layer - 3 times the hardness of stellite with a coefficient of friction equal to/less than PTFE
- Check Valve Glands: 316 Stainless Steel
- Liquid Seal: See Ordering Guide for options
- Air Drive Seals: Buna N

*Note: Maximum air drive pressure is limited by maximum output pressure.*
**Ordering Guide:**
For complete information on available pump options, contact Parker Autoclave Engineers.

Typical catalog number: **AHL66-2DSCUV**

**Liquid Flow Rate vs. Outlet Pressure:**

**AHL66-2DSC Series**

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<thead>
<tr>
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<tbody>
<tr>
<td>0</td>
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<td>3.6*</td>
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<tr>
<td>1000</td>
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**Nominal Liquid Pressure (Stalled)**

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<td>100</td>
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<table>
<thead>
<tr>
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</table>

**Notes:**
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2. Flow value at approximately 50 psi air drive pressure.
**Dimensional Data:**

- **Front View**
  - 1/8” NPT Thread Spool Air Inlet on Middle Plate
  - Liquid Inlet Female 1/2” NPT
  - Liquid Outlet Female 1/2” NPT

- **Side View**
  - 1” NPT Thread Air Driven Inlet
  - 1/4” NPT Thread Isolation Drain Port
  - 1/8” NPT Thread Spool Air Inlet Opposite Main Air Supply

**Note:**
- Each Mounting Bracket includes (2) x 0.50” (12.7) Slots for 7/16” Bolts.
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