The Muncie E and EH Series dump pumps are designed to meet the needs of the dump trucking industry. Muncie dump pumps are available in both direct and remote mount configurations; standard or extra-large port sizes; two or three line plumbing; and air, cable, or lever shift.

**DESIGNED FOR IMPROVED EFFICIENCY**

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**KEY FEATURES**

- Three piece, cast iron construction: Heavy duty, rebuildable.
- Roller bearing design: Long product life.
- Pressure-balanced wear plates: High efficiency.
- Larger ports (EH models): Fast cycle times.
- Remote and direct mount models: Versatility.
- 2 or 3 line options: Versatility

**3-LINE DUMP SYSTEM**

Many dump bodies function quite adequately with a 2-line design. However, a 3-line system includes a separate line to return hydraulic oil from the cylinder directly to the reservoir instead of forcing its way back through the inlet line.

The separate line is recommended when used for road building or stockpiling material because the 3-line pump allows faster down cycles, provides an easier method of filtering the hydraulic oil, and ultimately runs cooler.

**PUMP SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SERIES/MODEL</th>
<th>DISPLACEMENT CUBIC IN (CC)</th>
<th>WT.** LBS (KG)</th>
<th>MAX* RPM</th>
<th>MIN* RPM</th>
<th>MAX* PRES PSI (BAR)</th>
<th>INLET N.P.T. PORT</th>
<th>CYLINDER N.P.T. PORT</th>
<th>RETURN N.P.T. PORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>E / 23 (87)</td>
<td>5.20 (85.23)</td>
<td>67 (30.4)</td>
<td>2500</td>
<td>800</td>
<td>2500 (173)</td>
<td>1-1/4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>E / 27 (102)</td>
<td>6.37 (104.40)</td>
<td>69 (31.3)</td>
<td>2500</td>
<td>800</td>
<td>2500 (173)</td>
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<td>1-1/4</td>
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<tr>
<td>EH / 27 (102)</td>
<td>6.37 (104.40)</td>
<td>70 (31.7)</td>
<td>2500</td>
<td>800</td>
<td>2500 (173)</td>
<td>1-1/2</td>
<td>1</td>
<td>1-1/4</td>
</tr>
</tbody>
</table>

* Intermittent duty cycles only. Not recommended for ejector, conveyor, or moving floor type equipment.
** Weights listed are for remote mount pumps without brackets. For direct mount pumps add 2 lbs. (0.9 kg).
### DIRECT MOUNT DIMENSIONS

<table>
<thead>
<tr>
<th>SERIES/MODEL GPM (LITERS)</th>
<th>DIM A IN (MM)</th>
<th>DIM B IN (MM)</th>
<th>DIM C IN (MM)</th>
<th>DIM D IN (MM)</th>
<th>DIM E IN (MM)</th>
<th>DIM F IN (MM)</th>
<th>DIM G IN (MM)</th>
<th>DIM H IN (MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E /23 (87)</td>
<td>7.97 (202.4)</td>
<td>5.00 (127.0)</td>
<td>3.75 (95.3)</td>
<td>6.25 (158.8)</td>
<td>2.75 (69.9)</td>
<td>15.62 (396.7)</td>
<td>4.97 (126.2)</td>
<td>4.31 (109.5)</td>
</tr>
<tr>
<td>E /27 (102)</td>
<td>7.97 (202.4)</td>
<td>5.00 (127.0)</td>
<td>3.75 (95.3)</td>
<td>6.25 (158.8)</td>
<td>3.25 (82.6)</td>
<td>16.12 (409.4)</td>
<td>4.97 (126.2)</td>
<td>4.81 (122.2)</td>
</tr>
<tr>
<td>EH /23 (87)</td>
<td>8.34 (211.8)</td>
<td>5.38 (136.7)</td>
<td>3.95 (100.3)</td>
<td>6.69 (169.9)</td>
<td>2.75 (69.9)</td>
<td>16.54 (409.7)</td>
<td>5.41 (137.4)</td>
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</tbody>
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### REMOTE MOUNT DIMENSIONS

<table>
<thead>
<tr>
<th>SERIES/MODEL GPM (LITERS)</th>
<th>DIM A IN (MM)</th>
<th>DIM B IN (MM)</th>
<th>DIM C IN (MM)</th>
<th>DIM D IN (MM)</th>
<th>DIM E IN (MM)</th>
<th>DIM F IN (MM)</th>
<th>DIM G IN (MM)</th>
<th>DIM H IN (MM)</th>
</tr>
</thead>
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<tr>
<td>E /23 (87)</td>
<td>7.97 (202.4)</td>
<td>5.00 (127.0)</td>
<td>3.75 (95.3)</td>
<td>6.25 (158.8)</td>
<td>2.75 (69.9)</td>
<td>15.12 (384.0)</td>
<td>4.97 (126.2)</td>
<td>3.81 (96.7)</td>
</tr>
<tr>
<td>E /27 (102)</td>
<td>7.97 (202.4)</td>
<td>5.00 (127.0)</td>
<td>3.75 (95.3)</td>
<td>6.25 (158.8)</td>
<td>3.25 (82.6)</td>
<td>16.00 (381.0)</td>
<td>5.41 (137.4)</td>
<td>3.31 (84.1)</td>
</tr>
<tr>
<td>EH /23 (87)</td>
<td>8.34 (211.8)</td>
<td>5.38 (136.7)</td>
<td>3.95 (100.3)</td>
<td>6.69 (169.9)</td>
<td>2.75 (69.9)</td>
<td>16.53 (397.0)</td>
<td>5.41 (137.4)</td>
<td>3.81 (96.7)</td>
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<tr>
<td>EH /27 (102)</td>
<td>8.34 (211.8)</td>
<td>5.38 (136.7)</td>
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</tr>
</tbody>
</table>
### PUMP OPTIONS

#### E SERIES PORTS

<table>
<thead>
<tr>
<th>Pump Series</th>
<th>Conversion Sleeve</th>
<th>Remote Mounting Bracket</th>
<th>Air Cylinder Assembly*</th>
<th>Lever to Cable* Hook-Up (Remote Mt)</th>
<th>Lever to Cable* Hook-Up (Direct Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>AA-1257</td>
<td>B1235A</td>
<td>ACM-302</td>
<td>EHK-R</td>
<td>EHK-DL/EHK-DR**</td>
</tr>
<tr>
<td>EH</td>
<td>AA-1257-2</td>
<td>B1235A</td>
<td>ACM-302</td>
<td>EHK-R</td>
<td>EHK-DL/EHK-DR**</td>
</tr>
</tbody>
</table>

* Kit includes attaching bolts. Kit does not include any consoles, cables, or air valves to make kit shift. Contact Muncie for complete console accessories.

** EHK-DL is for counter-clockwise rotation, and EHK-DR is for clockwise rotation.

#### EH SERIES PORTS

### MODEL NUMBER CONSTRUCTION

- **Pump Series**
  - E
  - H
  - 2
  - X
  - L
  - 1
  - 27
  - 01
  - R
  - P
  - R
  - B

  - **Rotation**
    - B — Bi-Rotation (Remote Only)
    - L — Counter-Clockwise
    - R — Clockwise

  - **Port Location**
    - R — Rear

  - **Port Type**
    - P — Pipe Thread

  - **Type of Mounting**
    - B — SAE “B”
    - R — Remote

  - **Shaft Size & Type**
    - 01 — 1” Rd. With 1/4” St.Key (Remote Only)
    - 02 — 7/8”-13 Tooth Splined (Direct Only)
    - 17 — 1”-15 Tooth Splined (27 GPM Direct Only - Optional)

### NOTES:
- Maximum oil temperature is 200°F (93.5°C).
- Never use Teflon tape on pipe ports.
- Relief valve preset at 2000 psi (138 Bar)
- Maximum inlet vacuum is 5 inches Hg (.17 Bar).
- Third line (Return) must be below oil level at all times.
- Always use suction hose (SAE-100R4) on pump inlet.
# OIL RECOMMENDATIONS

Muncie does not promote specific manufacturers' brands of oil. Recommendations below are guidelines; consult oil manufacturer for exact application needs.

## Viscosity Range:
- **Viscosity Minimum:** 50-60 SUS (7.5-10.5 cST)
- **Viscosity Optimum Continuous:** 60-100 SUS (10.5-21.6 cST)
- **Viscosity Maximum @ Startup:** 7500 SUS (1600 cST)
- **Viscosity Index:** 90 Minimum
- **Aniline Point:** 175 Minimum

## Pour Point:
- **Maximum:** 15°F (-10°C)

## Foam Resistance:
- **Recommended**

## Rust Resistance Inhibitors:
- **Recommended**

## Corrosion Resistance:
- **Recommended**

## Oxidation Stability:
- **Recommended**

## Aniline Point:
- **Minimum:** 175

## Anti-Wear Additive:
- **.06% Zinc Minimum***

### Note:
Cold weather operation requires special oil considerations. Viscosity should not exceed 7500 SUS (1600 cST) at lowest startup temperature. Continuous operation should range between 60-1000 SUS (10.5-216 cST) for all temperature ranges. Never use diesel fuel or kerosene to thin oil.

*Anti-Wear Additives may be recommended by some motor manufacturers. However, they are optional and typically not required for gear pump or gear motors.*