Pipeline sampling enables monitoring of pipeline flow content for safety reasons as well as previewing crude oil content prior to arrival at the processing plant.

The sampled fluids are usually either oil or gasoline, at ambient temperature. Pipeline pressures can be as high as 1500 psi (103 bar). Pump differential pressure is low, and flow rate must be accurate to achieve proper sampling.

**PUMPING REQUIREMENTS**

**MICROPUMP SOLUTIONS**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Solution</th>
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</thead>
<tbody>
<tr>
<td><strong>FLOW RATE:</strong> 11 to 19 L/min (180 to 300 USG/hr)</td>
<td>We have variable speed pumps with flows from 1.74 to 26.6L/min (27.6 to 421 USG/hr)</td>
</tr>
<tr>
<td><strong>MAX SYSTEM PRESSURE:</strong> 1500 psi (103 bar)</td>
<td>Our pumps operate up to 1500 psi (103 bar) max system pressure</td>
</tr>
<tr>
<td><strong>ABRASION RESISTANCE FOR GRITTY CRUDE OILS</strong></td>
<td>Our construction materials maintain long life in abrasive environments</td>
</tr>
<tr>
<td><strong>CONTROLLED, PULSELESS FLOW</strong></td>
<td>We offer positive displacement gear pumps for precise, pulseless flow for sample extraction</td>
</tr>
<tr>
<td><strong>LEAK FREE</strong></td>
<td>Our magnetic drives eliminate dynamic shaft seals, keeping the oil and gas securely inside the pump and potential contaminants out</td>
</tr>
<tr>
<td><strong>MAINTAINABILITY</strong></td>
<td>We offer Service Kits for easy field serviceability</td>
</tr>
</tbody>
</table>
Micropump Series GDR is primarily used as a sampling pump. With A10 steel gears the GDR Series should be used to increase pump life when sampling gritty crude oil. The GL Series pumps with PEEK gears are used for higher flow rates and when sampling clean oil and gasoline.

**SERIES GDR**  
MAGNETIC DRIVE GEAR PUMP

- **FLOW RATE:** 1.74 to 13.9 L/min (27.6 to 221 USG/hr)
- **MAX DIFFERENTIAL PRESSURE:** 75 psi (5.2 Bar)
- **MAX SYSTEM PRESSURE:** 1500 psi (103 Bar)
- **WETTED MATERIALS:** 316SS, A10 gears, Viton® & EP seals
- **DRIVES:** NEMA, IEC, drive mounts

**SERIES GL**  
MAGNETIC DRIVE GEAR PUMP

- **FLOW RATE:** 2.3 L/min to 26.6 L/min (36.5 to 421 USG/hr)
- **MAX DIFFERENTIAL PRESSURE:** 125 psi (8.6 Bar)
- **MAX SYSTEM PRESSURE:** 1500 psi (103 Bar)
- **WETTED MATERIALS:** 316SS and PTFE
- **DRIVES:** NEMA, IEC, drive mounts

**PERFORMANCE SUMMARY**

This chart indicates optimal operating ranges for recommended products.

**MICROPUMP ADVANTAGE**

The unparalleled quality, performance record, reliability and long operating life of Micropump pumps and our extensive engineering expertise make Micropump a vital partner in this demanding market.