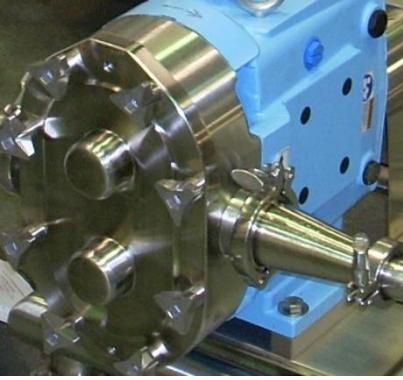
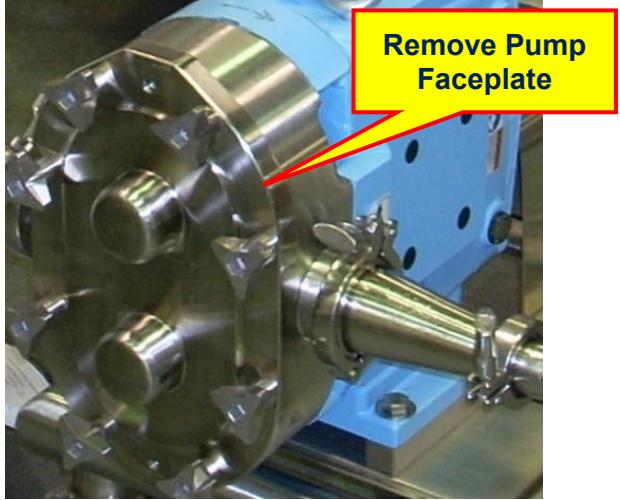
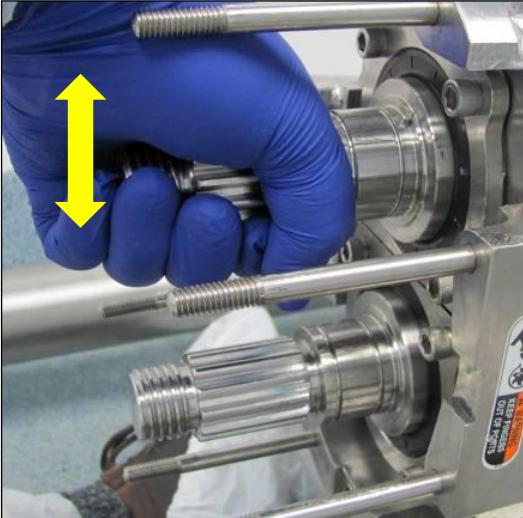


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| APS | Preventive Maintenance SOP | Doc. No. | 128.01.003 |
| | Rotary Pump Annual Maintenance | Effective Date | 15 January 2026 |
| | | Revision | REV 1 |

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|--|---|---|---|---|----------------|--------------------|------------------|----------------|--|
| <p>Purpose: To perform an inspection and oil change of the slurry system rotary pumps.</p> <p>Required PPE:</p> <table> <tr> <td></td><td></td><td></td><td></td></tr> <tr> <td>Safety Glasses</td><td>Hearing Protection</td><td>Steel Toed Shoes</td><td>Nitrile Gloves</td></tr> </table> |  |  |  |  | Safety Glasses | Hearing Protection | Steel Toed Shoes | Nitrile Gloves |  |
|  |  |  |  | | | | | | |
| Safety Glasses | Hearing Protection | Steel Toed Shoes | Nitrile Gloves | | | | | | |
| <p>Potential Hazards:</p> <p> The slurry pumps have rotating components. Keep hands clear unless the unit is off and locked out and tagged out.</p> <p> DANGER ELECTROCUTION HAZARD</p> <p> HOT!</p> | | | | | | | | | |
| <p>The slurry pumps have hot surfaces, which could cause severe burns. Avoid contact with these hot surfaces.</p> | | | | | | | | | |
| <p>Reference Documents: None</p> <p>Required Equipment & Materials:</p> <ul style="list-style-type: none"> Standard preventive maintenance tool kit Rags for cleaning FMO 1100 AW Gear Oil Catch pan for oil Oil funnel | | | | | | | | | |

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| Steps | Awareness |
|--|--|
| Prepare the Pump for Inspection | |
| 1. Remove the pump's face plate. |  |
| Inspect Pump Shafts Bearings | |
| 1. Grasp the pump shaft and apply an upward and downward force of about 30 pounds. |  <p>Check for Shaft Movement</p> |
| 2. Check that there is no detectable shaft movement. | Detectable shaft movement is an indication of a failing bearing. |
| 3. Repeat inspection for the other shaft. | |

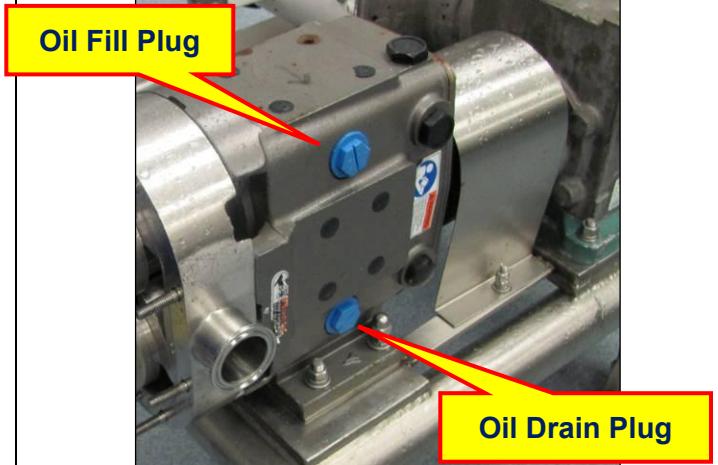
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| Steps | Awareness |
|--|---|
| Inspect the Pump Gears | |
| 1. Grasp the pump shaft and attempt to rotate it in a clockwise direction. |  <p>Check for Gear Backlash</p> |
| 2. Check that the shaft will not rotate without transmitting motion to the other shaft. | Detectable shaft rotation indicates gear backlash which can be caused by worn gears or gears loose on shaft. |
| 3. Repeat inspection for the other shaft. | |
| Inspect the Mechanical Seals | |
| 1. If applicable, obtain and inspect the chrome oxide mechanical seal for: <ul style="list-style-type: none"> • Cracks • Chips • Scratches • Grooves |  <p>Inspect Chrome Oxide Mechanical Seal</p> |

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| Steps | Awareness |
|---|---|
| Change the Gearbox Oil | |
| 1. Inspect the gearbox case for any sign of oil leaks. | |
| 2. Drain oil from the gearbox as follows: <ol style="list-style-type: none"> Remove the oil fill plug from the gearbox. Place a container under the oil drain plug. Slowly remove the oil drain plug and allow the gearbox to completely drain. Replace and tighten the oil drain plug. |  <p>Change Gearbox Oil</p> |
| 3. Add Bel-Ray No-Tox 90/140 Gear Oil to the gearbox through the fill opening. See chart at right for oil capacities. | <p>Pump Oil Capacities</p> <ul style="list-style-type: none"> Model 15 1.3 ounces Model 30 2.0 ounces Model 60 6.0 ounces Model 130 6.0 ounces |
| 4. Replace and tighten the oil fill plug. | |
| 5. Clean up any oil spillage. | |
| 6. Dispose of used oil properly. | |

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History of Revisions

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