

Extruder Gearbox Oil Change Recommendations

Safety and Preparation

1. The gearbox should be maintained according to the gearbox manufacturer's recommendations. Review the gearbox manual prior to performing maintenance. If they don't agree, the gearbox manual supersedes this document.
2. Assess for potential risks and hazards. Mitigate appropriately (PPE, ventilation, absorbent mats, etc). Follow all applicable Lock-Out/Tag-Out procedures before beginning work.
3. Make sure you have all necessary supplies before beginning. This includes: container(s) for spent oil, new filter, supplies for cleaning and mopping up spills or leaks, funnel and 40µm mesh filter for where the oil will be filled, new clean oil.
4. Thoroughly inspect the oil system for all drain locations. Identify the lowest point.
5. This process is a good time to do a thorough inspection of your gearbox and oil system for leaks or wear. The gearbox input shaft, output shafts, housing seams, and fittings should all be thoroughly checked and repaired if necessary.
6. Clean around any locations you will be opening up so that no debris will get knocked into the gearbox.

Drain Oil

7. Drain the oil from the lowest possible point.
8. Ensure all oil has been completely drained. Leftover oil can cause problems in your system. Draining when "warm" (but not hot!) can help and is recommended.
9. Never pressurize the gearbox with compressed air to facilitate faster draining of the oil. The gearbox seals can be blown out or damaged.

Extruder Gearbox Oil Change Recommendations

Clean, Inspect, Replace

10. Clean or replace the gearbox vent filter.
11. Clean any residual oil sludge, dirt, etc by flushing with clean oil.
12. Visually inspect inside the gearbox.
13. Replace the oil system filter.

Refill Oil

14. Only use oil approved by the gearbox manufacturer. Tables of acceptable oils can be found in the gearbox manual.
15. As a matter of principle, always use the same type and manufacturer of oil as used previously.
16. New oil should be filtered through 40µm mesh as it is pumped into the gearbox.
17. New oil should be warmer than 70 °F [21°C] before filling. The viscosity of the oil at lower temperatures will trigger alarms when restarting the extruder.
18. Oil can be added into any of the vent ports or inspection covers on the top of the gearbox. The inspection covers allow higher flow rates but increase the risk for contamination.
19. Estimated oil quantities can be found in the manual provided with your extruder. Always verify that the level indicator on the gearbox indicates an adequate oil level. (see Figure 1)

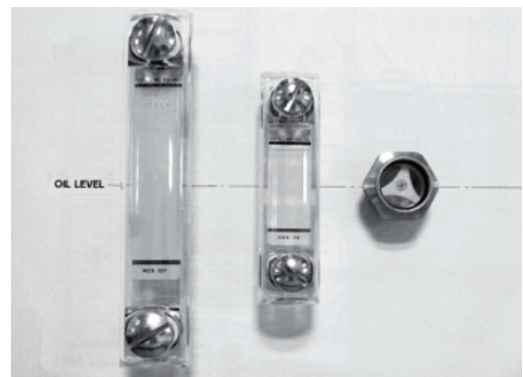


Figure 1: The ideal oil level is in the middle of the level indicator during operation.

Extruder Gearbox Oil Change Recommendations

Verify and Finish

20. Run the extruder for 5 minutes while observing the oil level. If the level drops during this operation, top up until it remains within the acceptable level range.
21. Dispose of used oil and contaminated materials according to site/environmental requirements.
22. Check and fix any remaining leaks.
23. Clean up the area and update maintenance records.

Did You Know?

ENTEK offers health and wellness checks!

ENTEK offers a variety of health and wellness inspections to keep your investment healthy.

Categories include but are not limited to:

- Critical Mechanical Health Checks
- General Mechanical Wellness Checks
- Customized Electrical Checks
- Customized Maintenance Checks

A scheduled health or wellness check includes:

- ✓ A pre-visit checklist and planning call
- ✓ One-day on-site extruder check-out by a trained technician
- ✓ A comprehensive report on the findings

Contact ENTEK to request a quote for your health and wellness needs.