

Liquids posing health hazards must be decontaminated and disposed of ensuring that there are no risks to persons or to the environment.

5.1 Periodic Maintenance

All flow, pressure, and temperature gauges should be monitored to ensure that the pump is operating within specified limits. If the frame temperatures are monitored, this temperature generally should not exceed 71°C (160°F).

The following table contains recommended service checks that should be performed on a periodic basis.

	Initial Start-Up	Weekly	Monthly
Flow, Pressure, Temperature	X	X	
Visual	X		X
Noise Vibration	X		X
Lubricate	X	X	X

5.2 Visual Inspections

Periodic visual inspection should be made of the pump and its installation.

This inspection should include the following:

1. All mounting supports should be secure.
2. All external nuts, bolts, and fittings should be tight.
3. All suction and discharge piping should be secure.
4. All surfaces and joints should show no signs of leakage.

5.3 External Cleaning

Periodic maintenance can involve the use of high pressure sprays to remove excess dirt and debris. When using such equipment, it is essential to ensure the bearing isolators are not sprayed in order to prevent liquid penetration into the bearing frame. If this occurs, simply drain, and re-lubricate.

5.4 Grease Lubrication

Grease lubrication is standard on EMW pumps. The grease base oil may be mineral or synthetic with synthetic base oil being preferred for bearing temperatures above 93°C (200°F). The consistency should be a NLGI grade 2, with a lithium or lithium complex thickener (soap).

Bearings in pumps shipped from the factory come with the bearings pre-packed with grease. When replacing bearings, pack the bearings 100% full of grease, and fill the pump housing cavity around the bearing 30% to 50% full of grease.

Re-lubrication intervals are difficult to determine. Once intervals are established through plant practices or experiences, regular lubrication intervals should be maintained. In the absence of pre-existing practices, refer to Appendix 1 for guidelines.

5.5 Oil Lubrication

The optional oil lubrication is a less common feature of the EMW pumps. Recommended oil change interval is once every three months when used in continuous operation. Viscosity grade recommendations are listed in the following table:

ISO Grade	Temperature	
VG68	63°C to 76°C	145°F to 170°F
VG150	77°C to 92°C	171°F to 199°F
VG220	9°C to 121°C	200°F to 250°F

The bearing unit should be filled until the sight glass indicates the oil level approximately in the middle:

Size	Oil Level Liters (Quarts)
50 (2x2)	0.6 (0.6)
75 (3x3)	0.7 (0.8)
100 (4x3)	1.0 (1.1)
150 (6x4)	1.3 (1.4)
200 (8x6)	2.1 (2.2)
250 (10x8)	4.6 (4.8)
300 (12x10)	5.9 (6.2)
350 (14x12)	5.6 (6.0)