

**AMARILLO®'S PORTABLE
OIL MANAGEMENT SYSTEM
FOR COOLING TOWERS**

LEAN, MEAN & GREEN OIL FILTRATION MACHINE

Simplify maintenance of cooling tower gearboxes.

Change oil safely and quickly from outside
the fan stack.

Filter oil to remove: water, particulate, sludge,
and varnish.

Move to Best Practice: change oil based
on sample results using built in sample port.

**Extend the life of your oil.
Extend the life of your gearbox!**

Filter rate from 1.5 to 2 gallons per minute

Removes 98.7% of all particles > 3 micron on each pass

Filter holds up to 2 liters of water

Quick connection configuration

*Requires (2) 1" lines in addition to the vent line
and access to 110 VAC*

Unit weighs under 200 lbs

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 Amarillo
Gear
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 A Marmon Water/Berkshire Hathaway Company

**STATIONARY UNITS
NOW AVAILABLE
FOR COOLING TOWERS**

Contact us for more
information



Thinking...Inside the box.



**Amarillo
Gear Service™**

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OIL MANAGEMENT SYSTEM

Features

- Removes particulate, water, varnish
- Continuous, unattended filtration
- Filter while gearbox is in operation
- Oil sampling port
- Hour meter
- Oil temperature gauge
- Powered oil changes
- Filters new oil prior to entering gearbox
- Portable on tower and throughout plant
- Flow restriction indicator on filter housing

Filtration Performance

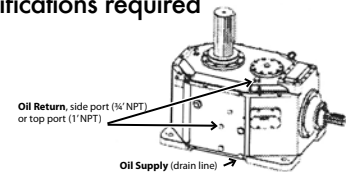
- Removes 98.7% particles > 3 micron / pass
- Element can retain a combined:
 - 12 – 15 lbs. particulate (dirt)
 - ~8 lbs. varnish
 - ~4-1/2 lbs. water (2L)

Specifications

- 110 VAC / 4.9A electrical requirements
- 2 GPM oil pump
- 1 complete set of quick connect couplings (female installed on unit / male kitted)
- 2 - 10' interface hoses
- Weight: ~200 lbs.

Installation Requirements

- Ø1" oil supply and return lines
- Access to 110 VAC receptacle
- Initial 3 gallon filtration unit oil fill
- No gearbox modifications required



Frequently Asked Questions

Does the filter blindly strip out the additives in my oil?

No. Some additives exist in the oil and are considered sacrificial. That is they attach themselves to very small particulates to enhance their size so that they can be removed by filtration. Once filtration begins, the particle is removed from the oil causing a reduction in particle count and additive concentration. The additive has done its job, as well as the filter. In most cases some additives will decline slightly and level off. This is expected. A different form of additive, additives in solution, cannot be filtered out simply because they are so small. Furthermore, the majority of additives are submicron and cannot be filtered out

How long will the filter last?

This is a very site specific question and depends on gearbox oil condition, operating schedule, etc. Generally, the filter should be replaced at a minimum annually. The filtration unit is equipped with a flow restriction gauge which provides the operator an indicator of filter condition. Replacement filters are provided through Amarillo Gear.

I've heard varnish can only be removed electrostatically. Is this true?

No. Cellulose filters, such as the one in our unit, through a process called adsorption, can effectively remove varnish. This type of filter has been used for this application for many decades.

What type of filter element does this unit have?

80% cellulose hardwood fibers / 20% cotton linters.

How long do I keep the unit on each gearbox?

Recommendation is a minimum of 15 passes. So, for a gearbox with 21 gallons of oil,
 $21 \text{ gal} \times 15 \text{ pass} / 2 \text{ GPM} / 60 \text{ minutes} = \sim 3 \text{ hours}$

It should be noted that increasing the filtration time provides further oil condition improvement.

What is the payback?

6 months to one year.

What is the warranty?

1 year from startup.