



The OILMISER™ Vapor Guard

- An air breather is used to vent the enclosed air space on the Drive End and Non-Drive End bearings on a Boiler Feed Pump.
- Increasing heat and thermal expansion, cause inside oil vapors to migrate out through the air breather and into the work place.
- The oil vapors condense back into free oil inside the air breather forming droplets of oil that drip down from the air filter.
- Any loss of lubricating oil is a maintenance issue, a safety issue, an environmental issue, and an ongoing house keeping issue.

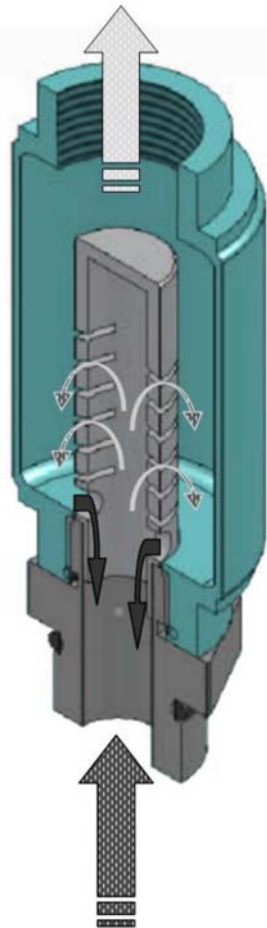
Solving the Problem

- The oil saturated air breather is removed from the vent port on the bearing housing.
- An **OILMISER™** Vapor Guard is turned directly into the female vent port.
- A new air filter is then turned into the top port of the Vapor Guard.

- The migrating vapors continue to condense back into oil, but now they are contained inside the Vapor Guard.
- The air, purged of oil mist by the Vapor Guard, can now exit through the vent port without contaminating the air filter.
- The oil mist that condensed out inside the Vapor Guard is uncontaminated and is returned to the bearing housing to continue lubricating the bearing.

How it Works

- The cut-away on the left shows the construction of an **OILMISER™** Vapor Guard.
- A central diffuser post is located inside a sealed aluminum containment chamber.
- Migrating vapors are dispersed by the diffuser post, inside the containment chamber and condense back into liquid oil. The condensed oil builds and runs down to the bottom of the containment chamber where it collects as uncontaminated lubricating oil.
- The condensate at the bottom of the containment chamber is continuously being channeled back into the bearing housing through bleed back holes located at the bottom of the diffuser post.
- The complete diffuser post assembly can be easily removed from the **OILMISER™** Vapor Guard, inspected, cleaned and reinstalled for continued vapor control.
- Oil contained within the Vapor Guard is oil that did not contaminate the air breather or the workplace around it.



Operational and Installation Details

Air quality is a major consideration, for both the reliability of the machinery and, for the safety and protection of the workplace environment.

The **OILMISER™** Vapor Guard is designed for lubricated machinery with an enclosed head space that is vented to atmosphere. The most common applications are on rotating machinery like gearboxes, bearing housings, and hydrostatic drive-train components.

The **OVG** is also a very effective splash guard on high speed equipment, the oil vapor problem is often compounded by the spray from an oil flinger and other internal moving parts. The configuration of the internal diffuser post prevents any oil from entering the air filter, and escaping to the outside, collecting it, and returning it to the gearbox. .

In a simple yet flexible design, the **OVG** offers a wide range of mounting configuration. A variety of top end adapters will also accept most air filters, spin-on filters, and can significantly extend the life of desiccant air breathers. The **OILMISER™** Vapor Guard is ideal for the end user, the OEM manufacturer and their maintenance service providers.

The standard **OILMISER™** Air Filter assembly has a ½" NPT male pipe. It uses our high efficiency 5 micron air filter and a high visibility, all-weather molded cap. The automotive style air filter cartridge is easy to visually inspect and quick to replace when necessary.

The 6000 Series **OILMISER™** Vapor Guard is available in a standard length (OVG-6200) or a double length (OVG-6220). The longer dwell time in the containment chamber of the OVG-6220, will increase the amount of condensate removed from the migrating vapors.

A Typical Application

This photo shows an typical example for using an **OILMISER™** Vapor Guard, as reported by the Reliability Engineer for a major pulp mill.

"Here is one of the most effective examples of using the vapor guard. This is on the gear end of a (fines) blower where we were constantly losing a few liters of oil per week."



"This unit would splash oil up into the air breather and it would quit breathing. Our first attempt at resolving this problem was to extend the breather up higher above the gear casing. This did not help. We then added the vapor guard and now the unit breathes properly. We have not added any oil since."

They used a standard Vapor Guard Part #. OVG-6200-5050.



A Typical Application

- On a crucial gearbox, oil vapor is migrating out of the top vent port, contaminating the air breather, and rendering it ineffective. Installing of a 6 inch stand pipe does not eliminate the problem.
- The air breather and stand pipe are removed from the vent port. An **OILMISER™ Vapor Guard** is threaded into the port, then the stand pipe and air breather are threaded into the top port of the vapor guard. The useful life of the desiccant air breather was greatly extended.



**KILN DRIVE
SPEED REDUCER**



**BOILER FEED PUMP
FLUID DRIVE COUPLING**



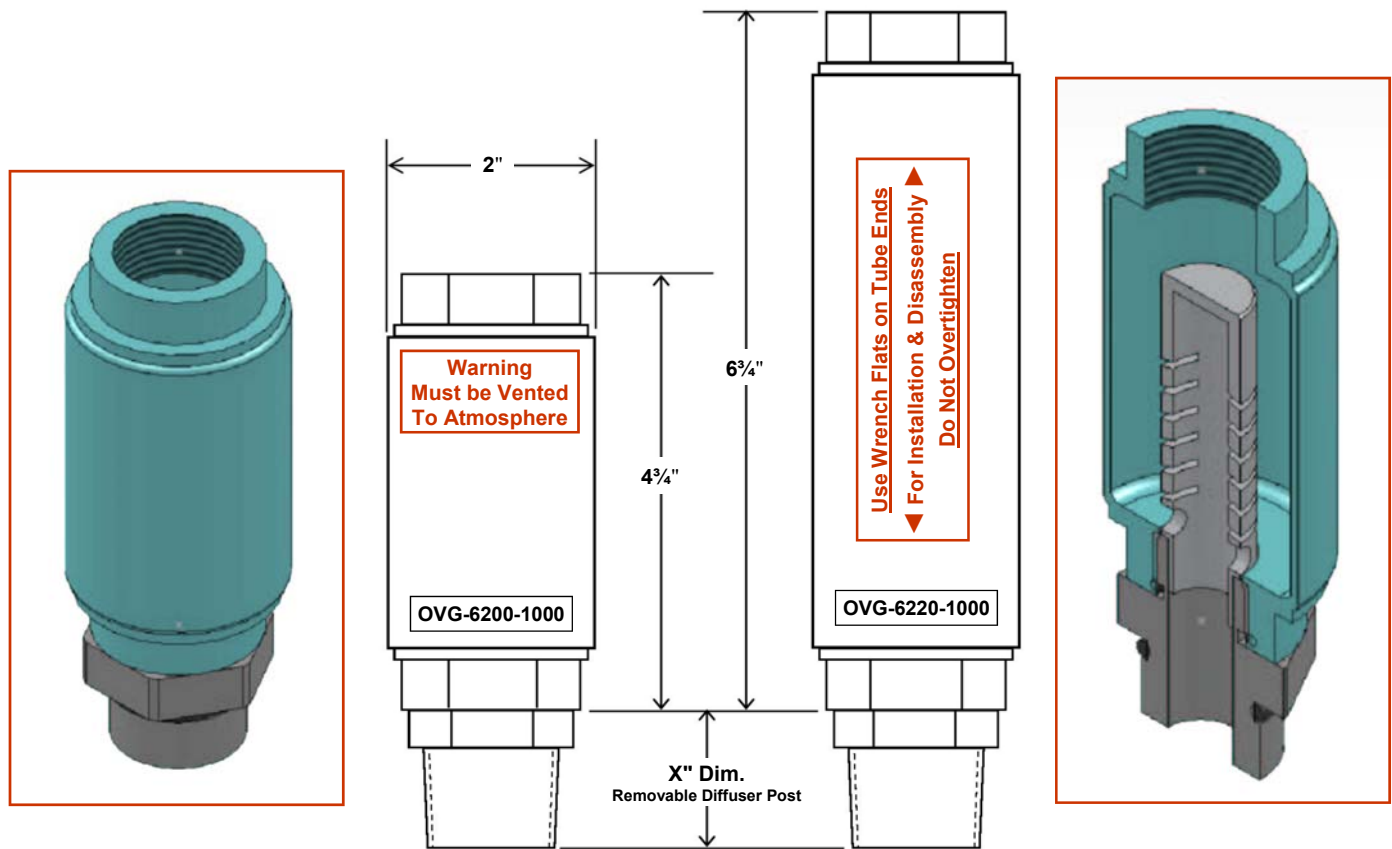
**HIGH SPEED
STOCK PUMP**



A Typical Application

- On a high speed stock pump, oil spray is escaping from the bearing housing, fouling the air filter with lubricating oil to the point of saturation and coating the bearing housing with oil. A saturated air breather also reduces the life of mechanical seals.
- An **OILMISER™ Vapor Guard** is installed between the bearing housing and the air filter. The oil spray collects inside the containment chamber of the Vapor Guard, and is continuously channeled back into the bearing housing. The bearing housing and surroundings are no longer covered with oily dust.
- This customer has installed well over 100 Vapor Guards.

OILMISER™ Technology



OVG 6000 Series Dimensional Detail	Female Pipe (Top) Male Pipe (Btm)	Dimension X	Wrench Flats Tube Ends	Wrench Flats Diffuser Post	Approximate Weight
Standard Length					
OVG-6200-3838	3/8" NPT x 3/8" NPT	1.25"	1 1/2"	1 1/4"	380 grams
OVG-6200-5050	1/2" NPT x 1/2" NPT	1.25"	1 1/2"	1 1/4"	13.2 oz
OVG-6200-7575	3/4" NPT x 3/4" NPT	1.18"	1 1/2"	1 1/4"	415 grams
OVG-6200-1000	1" NPT x 1" NPT	1.45"	1 1/2"	1 3/8"	15 oz
Double Length					
OVG-6220-3838	3/8" NPT x 3/8" NPT	1.25"	1 1/2"	1 1/4"	420 grams
OVG-6220-5050	1/2" NPT x 1/2" NPT	1.25"	1 1/2"	1 1/4"	15 oz
OVG-6220-7575	3/4" NPT x 3/4" NPT	1.18"	1 1/2"	1 1/4"	480 grams
OVG-6220-1000	1" NPT x 1" NPT	1.45"	1 1/2"	1 3/8"	17 oz

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JLM Systems Limited 23091 Westminster Highway Richmond, BC V6V 1B9 Canada Toll Free: 888-736-8645 Fax: (604) 521-1244		Part Number	OVG-6000-DIM
		Description	OILMISER™ Vapor Guard 6000 Series Dimensional Details
Drawing Number	OVG-6000-DIM	Issue Date	01 July 2008

The OILMISER™ Vapor Guard

The **OILMISER™ Vapor Guard (OVG)** is designed for lubricated machinery that is vented to atmosphere. Oil mist generated in the air space above the lubricating oil exhausts through the air breather. The OVG traps these fumes in a sealed containment chamber. The oil mist now coalesces back into uncontaminated lube oil and collects at the bottom. From here, this condensate is channeled back into the machine to continue lubricating the equipment. When used on industrial gearboxes, power train components and hydraulic reservoirs the OVG can significantly extend the useful life of the air breather. It also reduces the harmful effects of unseen oil fumes and vapors that are continuously contaminating our work place environment.

Installation & Service Instructions

Note 1 : Always clean any accumulated dirt and debris from the immediate working area around the air breather.

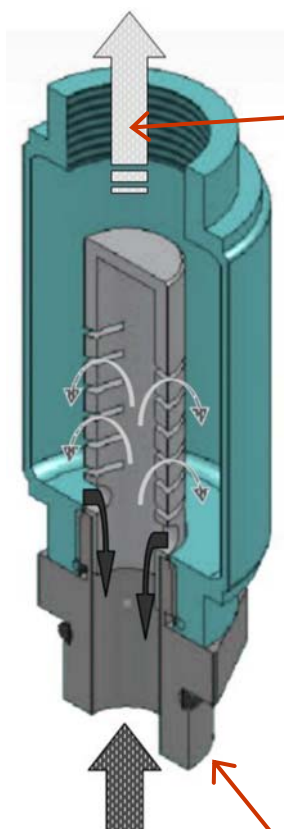
Note 2 : It is recommended that all threaded connections be lightly coated with a compatible lubricating grease before final assembly

- Remove the existing air breather from the machine or reservoir vent port.
- Using the correctly sized spanner, turn the fully assembled Vapor Guard into the vent port.
- Re-install a clean air breather into the top port of the Vapor Guard. Hand tighten.
- Periodically inspect the air filter for any signs of contamination. Clean and change if necessary.
- An annual inspection and cleaning of the difuser post and conainment chamber is recommended. Always use two spanners for disassembly.
- Where the vent port and fill port are the same, remove the Vapor Guard before adding any lubricating oil to the machinery.



The OILMISER™ Vapor Guard Ordering Information

When ordering the OILMISER™ several configurations and combinations are available. Attention should be paid to both the bottom end mounting size, and the top end mounting size.



- the standard length OVG-6200 series and
- the double length OVG-6220 series.

The top end female port is for the air filter. Four sizes are available

1. $\frac{3}{8}$ " NPT (OVG-6200-XX**38**)
2. $\frac{1}{2}$ " NPT (OVG-6200-XX**50**)
3. $\frac{3}{4}$ " NPT (OVG-6200-XX**75**)
4. 1" NPT (OVG-6200-XX**00**)

↑ Top Connection
Bottom connection

The OILMISER™ Vapor Guard can be ordered as a complete assembly that includes the OILMISER™ 5 µm air filter and high visibility molded cap Part No. AFE-5M-050. For this configuration, the top end female port is $\frac{1}{2}$ " NPT, and is identified with a part number ending with "A5M".

- i.e. OVG-6200-XXA5M

The bottom end male connector mounts directly into the gearbox.



Four standard pipe sizes are the most common, however, a variety of BSPP and Metric sizes are also available from the factory on request. Any combination of top & bottom configuration are available from stock at the factory.

1. $\frac{3}{8}$ " NPT (OVG-6200-**38XX**)
2. $\frac{1}{2}$ " NPT (OVG-6200-**50XX**)
3. $\frac{3}{4}$ " NPT (OVG-6200-**75XX**)
4. 1" NPT (OVG-6200-**10XX**)

1" NPT Air Filter not included



A Picture can Save a 1000 Words & Thousands of Kilometers

Send us a picture of your particular application, and we can send you the information you need

What you should consider**What do you want to do?**

- Filling and venting
- Draining and disposal
- Oil sampling and analysis
- Contamination control
- Kidney-loop filtration
- Portable or dedicated system
- Circulating and cooling
- Oil room storage & dispensing

What do you have now?

- Hydraulic Reservoirs
- Gearbox or bearings
- Type & Size of vent
- Top or side access
- Pipe, metric or flange
- Inspection cover layout
- Type & size of drain port
- Oil Sight - Level gauge
- Type and grade of oil

What are the operating conditions?

- Indoors or outdoors
- Cold, wet, dry, dusty
- Accessibility - top to bottom
- Front to back - side to side
- Obstructions and elevations
- High or low traffic area
- Inspection frequency

