



### Following the Clues

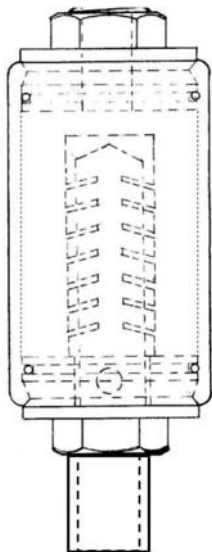
- An air breather is used to vent the enclosed air space on the Drive End and Non-Drive End bearings for a Boiler Feed Pump.
- With increasing heat and thermal expansion, oil vapors form inside the bearing housing and migrate up and out of the air vent into the work place.
- The oil vapors condense back into lube oil inside the air breather. The air filter once saturated with oil needs to be replacement.
- Oil droplets form and drip out of the air filter, puddling on the bearing housing, then running down to the concrete base and floor.
- This loss of lubricating oil creates a maintenance issue, a safety issue, an environmental issue, and an ongoing house keeping issue.

### The OILMISER™ Vapor Guard

- The oil saturated air breather is removed from the vent port on the bearing housing and replaced with an **OILMISER™ Vapor Guard**.
- A clean and uncontaminated air filter is then reinstalled into the top port of the **OILMISER™ Vapor Guard**. The migrating vapors continue to condense back into oil, but now they are contained inside the vapor guard. The purged air passes can now exit the **OILMISER™ Vapor Guard** without contaminating the air filter.
- The condensed oil inside the vapor guard is uncontaminated and returns to the bearing housing to continue working as a lubricating oil for 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. As this condensed oil builds, it runs down the diffuser post and the inside walls of the containment chamber and collects at the bottom.
- This accumulated oil in the containment chamber is uncontaminated and is continuously channeled back into the bearing housing through “bleed back” holes located at the very bottom of the diffuser post.
- The complete diffuser post assembly can be easily removed from the **OILMISER™ Vapor Guard** for inspection and cleaning, then reinstalled for continued vapor control. Diffuser posts are interchangeable and come in male pipe sizes from 3/8" NPT to 1" NPT,

### Operational and Installation Details

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 transmissions.

Air quality is a major consideration, for both the reliability of machinery and, for the safety and protection of the workplace environment. The OILMISER™ Vapor Guard is also effective when used as a splash guard.

On higher speed rotating machinery the oil vapor problem can be compounded by the spray of oil from internal moving parts. The OILMISER™ Vapor Guard acts as a collection chamber for this oil spray. Direct contact of this oil with the air filter, and escapement to the outside is prevented.

A simple yet flexible design, offering multiple port configurations, combined with a variety of OILMISER™ adapters, makes the OILMISER™ Vapor Guard an ideal choice for the end user, as well as the OEM manufacturer and the service and supply contractor. The vapor guard accepts most of the conventional air filters, spin-on filters, and desiccant air breathers.

JLM Systems offers an OILMISER™ Air Filter assembly with a ½" NPT male pipe. It uses our standard 5 micron air filter and all-weather molded cap. The automotive style air filter cartridge is easy to visually inspect and quick to replace when necessary.

The 6200 Series OILMISER™ Vapor Guard is available in a standard length or a double length. In some applications, a longer dwelt time in the containment chamber 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 added a standard length vapor guard to the 6 inch stand pipe, model No. OVG-6200-5050.



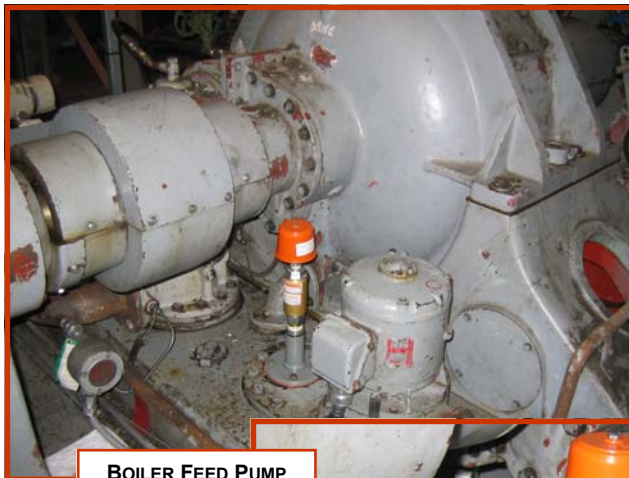
### A Typical Application

- 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. Oil no longer accumulates in the desiccant breather, and its useful life is greatly extended.



**KILN DRIVE  
SPEED REDUCER**



**BOILER FEED PUMP  
FLUID DRIVE COUPLING**



**HIGH SPEED  
STOCK PUMP**

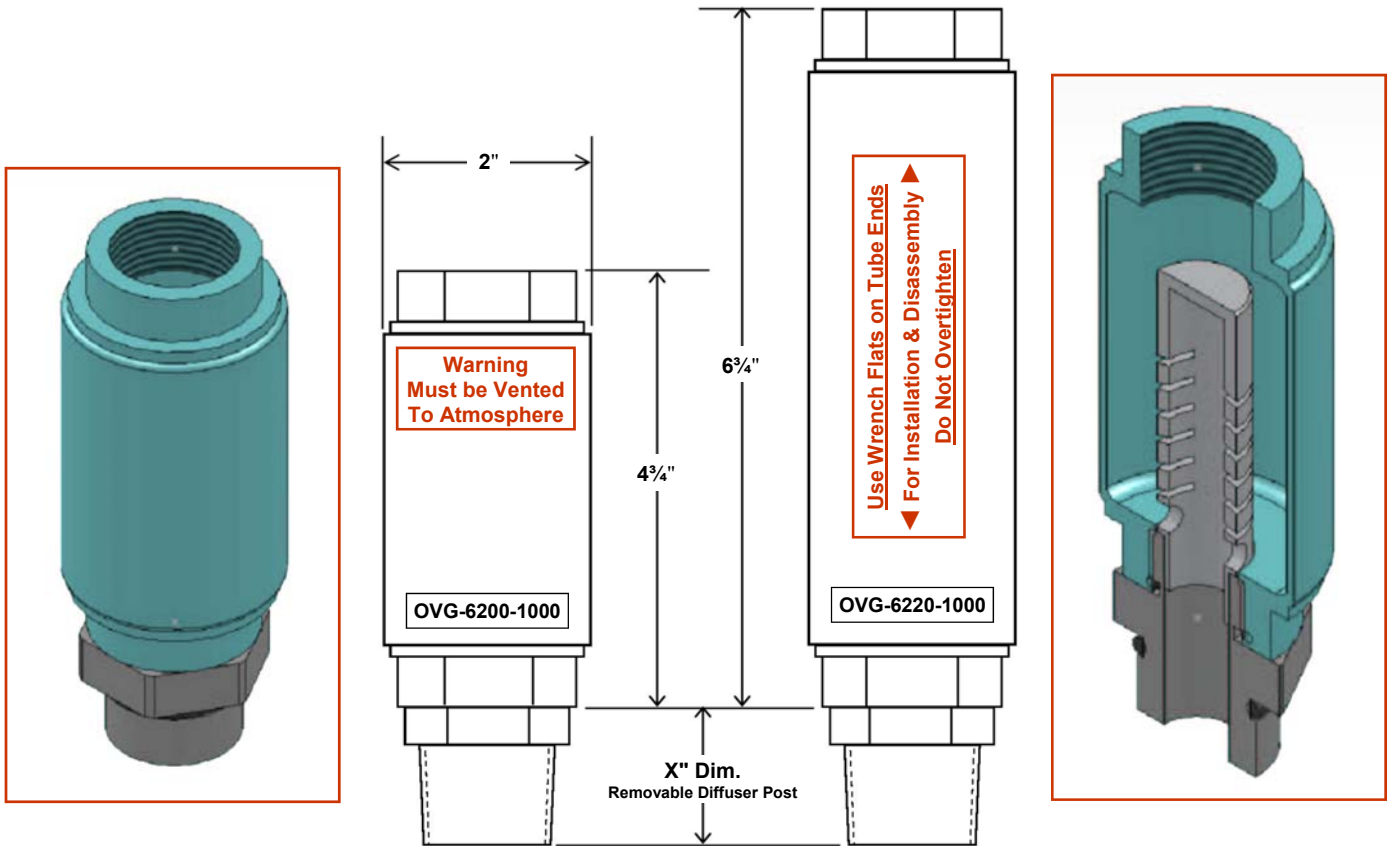


### A Typical Application

- 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. In addition to contaminating the surrounding area with oil, a saturated air breather 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. Now it is continuously channeled back into the bearing housing to continue the job of lubricating the machinery. The bearing housing and surroundings are no longer covered with oily dust.

# OILMISER™ Fluid Handling Products



OVG 6000 Series Dimensional Detail	Female Pipe (Top) Male Pipe (Btm)	Dimension X	Wrench Flats Tube Ends	Wrench Flats Diffuser Post	Approximate Weight
<b>Standard Length</b>					
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
<b>Double Length</b>					
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

This Drawing and the details herein are the property of JLM Systems Limited and not for distribution or reproduction without consent by JLM Systems

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

## 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
- Service intervals

