

# M<sup>2</sup> (Micro Micron) Breather

Compact Sized Air Breather / Shield for Small Equipment such as Pumps or Gearboxes

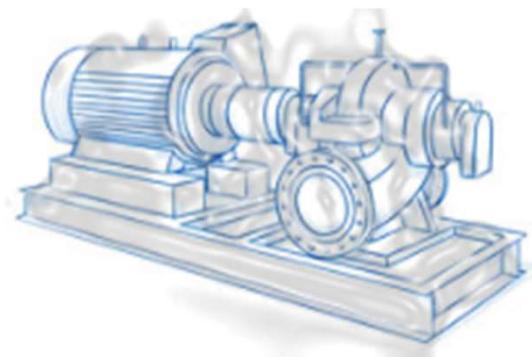
Lubrication Plus 

Industry is spending a lot of money each year to solve problems caused by damp and dirty air. Contaminated lubrication and hydraulic oil accelerate increase of equipment wear, failure time and repair costs. M<sup>2</sup> Micro Micron Breather is a product that provides optimal performance for equipment with small amount of oil flow which is exposed to a lot of dust around it.

M<sup>2</sup> Micro Micron Breather removes the source of contamination and extends life time of equipment and oil. Vent plug in the breather is used to relieve pressure or vacuum on bearing housing, gearbox, reservoir, or applications where ventilation is necessary.

## Benefits

- Increase service life of oil
- Reduce corrosion and increase service life of the equipment



## Specifications

- Filter Material and Fineness : Hydrophobic media, 1 µm
- Does not require additional sealant as sealed by O-ring
- Corrosion Resistance and Robust

Item	Spec
Part No.	SE-M2-1
Size	Ø45 * H35 mm
Connections	Male 3/8"(PF)
Oper. Temp.	-40°C ~ 100°C
Flow Rate	65.1 lpm @1psig
Filtration	1µm Hydrophobic Filter Media
Housing Material	Engineering Plastic

## How it Works

- Blocks dust or oil mist when breathing



**Robust Housing**

**Connector**  
: Easy connection to adapter or reducer

**Hydrophobic Media**  
: Blocks particles from outside and oil mist from inside tank



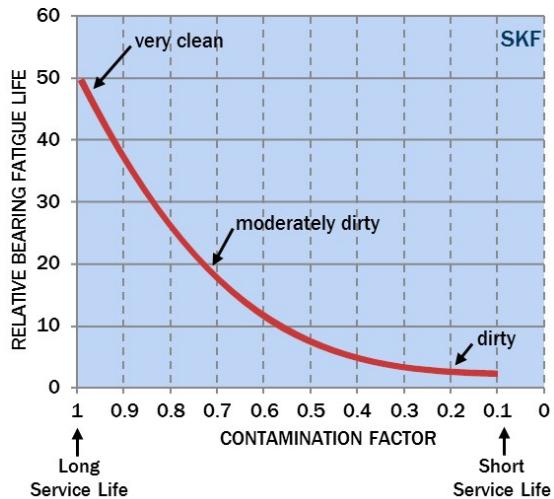
**Male PF 3/8"**

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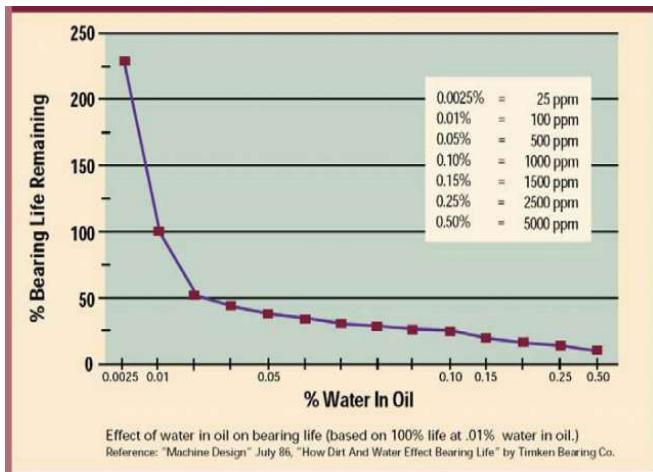
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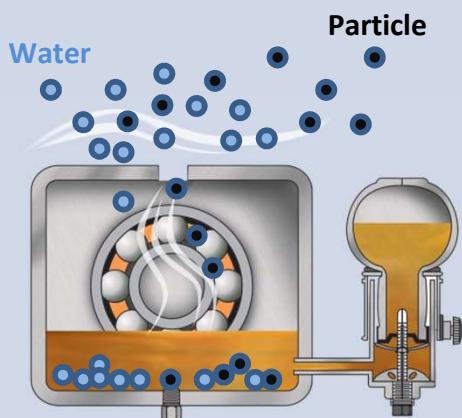
## Particle Contamination vs. Bearing Life



## Water Contamination vs. Bearing Life

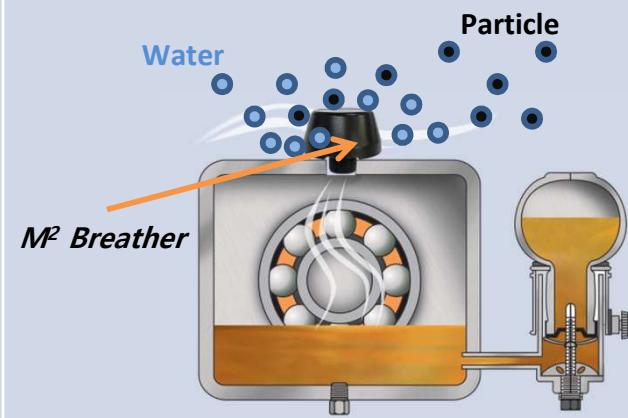


## Before



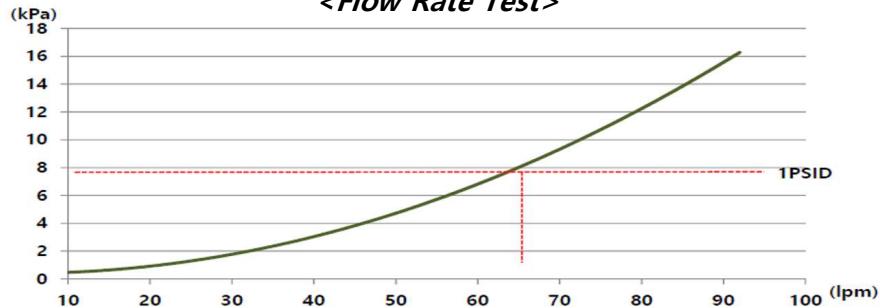
1. Water penetration causes acceleration in the oxidation of lubrication oil and breakage of oil film, which reduces life time of bearing. (1000ppm of water brings 90% reduction of bearing life time).
2. Particle penetration causes wear of bearing.

## After



1. Prevent water penetration by using hydrophobic filter media
2. 1 µm fineness does not allow penetration of fine particles and prevents wear of bearing.

### <Flow Rate Test>



Model	Flow Rate	Remark
M2	2.3CFM@1PSID 65lpm@6.9kPa	We marked at 1psid to test against flow rate of competitor product