SAW 115 series
Moisture control
desiccant breathers
FEATURES & BENEFITS

✔ Absorbs harmful water vapour
✔ Removes moisture in the headspace of equipment
✔ Eliminates rust-forming condensation
✔ Prevents sludge deposits and water-contaminated oil
✔ Filters damaging contaminants
✔ Prevents contamination ingress
✔ Delivers longer lubricant life
✔ Reduces wear and tear and extends the lifespan of machinery
✔ Comprehensive system protection

Second polyester filter element
Protects against migration of desiccant dust in the reservoir for maximum efficiency

Air Diffuser
Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.

Air Vents
Individual air intakes are opened based on flow requirements of the system. Plugs protect unit during shipping and storage.

Integrated Standpipe
Excellent vibration resistance, dissipates impact throughout the unit - eliminating weak points, and allows even airflow distribution
INTRODUCTION
To ensure greater efficiency and to maximise the lifespan of hydraulic and lubrication systems, the fluids should be kept free from solid and water contamination. However, most fluid reservoirs must breathe to function, allowing water vapour and solid contaminants to enter. Temperature fluctuations in the reservoir will cause this water vapour to condense, which will not only cause oxidation of the oil, but can also lead to considerable mechanical damage. Standard air breathers remove some of the solid particles, but allow water vapour to pass freely.

WHAT IS A DESSICANT BREATHER?
The desiccant breather is a product that combines filtration of pollution and absorption of free water contained in the air. When the air enters the equipment through the breather, the filter layers remove the solid contamination while the desiccant agent holds the moisture. While in service or during shut-down, the desiccant agent dries the equipment, absorbing moisture from the reservoir. SAW is a range of desiccant breathers for hydraulic and lubrication systems.

WHAT CONTAMINATION PROBLEMS CAN DESSICANT BREATHERS PREVENT?
Liquid contamination is the cause of hydraulic and lubrication fluid performance issues.

Negative effects include:
× Increase of fluid acidity
× Reduction of lubrication performance
× Reduction of fluid longevity
× Creation of bacterial colonies
× Creation of ice at low temperatures

It also causes damage in the hydraulic systems:
× Creation of rust in the hydraulic tanks
× Wear and tear on equipment
MP Filtri’s range of breathers are proven in a wide variety of applications, including: IBC tanks, Transformers, Storage Tanks in Hydraulics, Power Generation, Mining, Aviation, Storage, Manufacturing, and Petrochemical applications.

Where is SAW series used?
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Where can’t SAW series be used?
The SAW series is NOT suitable for the following environments:
- Systems with aggressive fluids (Phosphate esters, Hydrogen sulfide, Sulfuric acid, Highly alkaline cleaners)
- Systems with heavy duty cycles (Vibrations, Risk of impacts, Wide temperature range)
- Large systems

Applications

How does SAW Series works

1. The air diffuser made of foam disperses the air.
2. The filter layer holds the solid contamination.
3. The dryer agent adsorbs the moisture from the air.
4. An additional air diffuser made of foam captures the oil mist.
5. An additional filter layer stops dryer agent dust.

THE DRYER AGENT EVEN WORKS DURING SYSTEM SHUT-DOWN ABSORBING THE MOISTURE FROM THE AIR.

SAW Series Benefits

- Eliminates condensation and prevents rust.
- Dries air drawn into the tank as result of the tank breathing.
- Prevents wear caused by the oxidation of the hydraulic fluids (reduction of lubrication).
- Extends the life time of hydraulics and fluids.

Applications

Hydraulic systems
Oil storage
Renewable energy
Gearbox
Transformers
Tanks

Focus on

How does SAW Series works

The air comes into the equipment through the breather.

The air diffuser made of foam disperses the air.
An additional air diffuser made of foam captures the oil mist.
The dryer agent adsorbs the moisture from the air.
An additional filter layer stops dryer agent dust.

THE DRYER AGENT EVEN WORKS DURING SYSTEM SHUT-DOWN ABSORBING THE MOISTURE FROM THE AIR.
**SAW 115 GENERAL INFORMATION**

### Description

**Air Breathers**

Max air flow up to 453 l/min (16 cfm)

SAW115 breather units can be added to systems or can replace existing breathers using the SMG 1 adapter.

As air is drawn into equipment through the breather, the layered filter elements remove particulate while the desiccant beads strip harmful moisture.

While in service or during shut-down, the desiccant beads attract moisture from inside the equipment reservoir, actively drying the system fluid.

**Available features:**
- Male threaded connections 1” Multi-fit (NPT, BSPT, NPSM)

**Common applications:**
- Storage tanks
- Transformers
- Hydraulics power packs

### Technical data

**Materials**
- Connection: Polyamide
- Internal Support Pipe: Polyamide
- Screen: Polycarbonate
- Cover: Polyamide
- Dryer Agent: Silica Gel

**Filter Efficiency**
- 3 µm absolute (B3 ≥200)

**Seals**
- NBR

**Temperature**
- From -25 °C to +90 °C (from -20 °F to +200 °F)

**Chemical Compatibility**
- Recommended:
  - All Gear Oil
  - Most Hydraulic Fluid
  - Mineral and Synthetic Oil
- Not Recommended:
  - Phosphate Ester
  - Hydrogen Sulphide
  - Sulphuric Acid
  - High Alkaline Cleaner

**Humidity Protection**
- An MP Filtri standard breather is five times more effective than leading non-dessicant breathers.

**Humidity Level**
- Below Ambient Conditions
  - SAW1153G03A00P01 protects 30,000+ cycles
  - Deliquescent:
    - Protects 5,000 cycles
    - (Testing parameters 23 °C, 30 l/min - 73 °F, 1 cfm)

### AIR VENT HOLES

**Important installation information**
- The air vent holes are plugged for any new breather
- The plugs protect the dryer agent during storage and shipment
- The plugs must be taken out during the installation, according to the max hydraulic flow rate

<table>
<thead>
<tr>
<th>Max hydraulic flow rate</th>
<th>Holes to open</th>
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<tbody>
<tr>
<td>[ l/min (cfm) ]</td>
<td>[ ml (fl.oz)</td>
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<tr>
<td>up to 110 (4)</td>
<td>2</td>
</tr>
<tr>
<td>from 111 to 220 (4-8)</td>
<td>4</td>
</tr>
<tr>
<td>from 221 to 330 (8-12)</td>
<td>6</td>
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<tr>
<td>from 331 to 452 (12-16)</td>
<td>8</td>
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</table>

### Performances

<table>
<thead>
<tr>
<th>Series</th>
<th>Length</th>
<th>Max hydraulic flow @ 7 kPa (1 psi)</th>
<th>Water Absorption Capacity</th>
<th>Recommended max volume</th>
<th>Silica gel weight</th>
<th>Total weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>[ l/min (cfm) ]</td>
<td>[ ml (fl.oz) ]</td>
<td>[ l (gal) ]</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Gearbox / Storage tank</td>
<td></td>
<td>Hydraulic reservoir</td>
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<td></td>
</tr>
<tr>
<td>SAW115</td>
<td>1</td>
<td>453 (16)</td>
<td>118 (4)</td>
<td>757 (200)</td>
<td>227 (60)</td>
<td>0.32 (0.70)</td>
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<tr>
<td>SAW115</td>
<td>2</td>
<td>453 (16)</td>
<td>220 (7.45)</td>
<td>1325 (350)</td>
<td>379 (100)</td>
<td>0.56 (1.23)</td>
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<tr>
<td>SAW115</td>
<td>3</td>
<td>453 (16)</td>
<td>333 (11.3)</td>
<td>1893 (500)</td>
<td>757 (200)</td>
<td>0.84 (1.88)</td>
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</tbody>
</table>

**Connection**: Polyamide
**Internal Support Pipe**: Polyamide
**Screen**: Polycarbonate
**Cover**: Polyamide
**Dryer Agent**: Silica Gel

**Filter Efficiency**: 3 µm absolute (B3 ≥200)

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Silica gel

Silica gel is the most efficient and economic moisture adsorbent for general applications.

A white breather means the unit has done its job keeping moisture out of your lubricants.

Whenever the colour changes from orange to white it's time to replace the breather with a new one.

All breathers should be changed at least once a year.

**IMPORTANT**
Dispose of the exhausted silica gel according to the regulations in force in the country of use.
SAW 115

Dimensions

<table>
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<tr>
<th>Length</th>
<th>H [ mm (in) ]</th>
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<tr>
<td>1</td>
<td>154 (6.06&quot;)</td>
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<tr>
<td>2</td>
<td>205 (8.07&quot;)</td>
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<tr>
<td>3</td>
<td>256 (10.08&quot;)</td>
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Optional 6-hole tank flange
SMG1 type

1" Multi-fit (NPT, BSPT, NPSM)

Holes on the tank

(*) 1" Multi-fit (NPT, BSPT, NPSM)
## WORLDWIDE NETWORK

### HEADQUARTERS

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<th>Company</th>
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<td>MP Filtri S.p.A.</td>
<td>Pessano con Bornago</td>
<td>Italy</td>
<td><a href="mailto:sales@mpfiltri.com">sales@mpfiltri.com</a></td>
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### BRANCH OFFICES

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## PASSION TO PERFORM

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