

**NEW**

Tank accessories

# SAW 115 series

Moisture control  
desiccant breathers



**PASSION TO PERFORM**



# 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

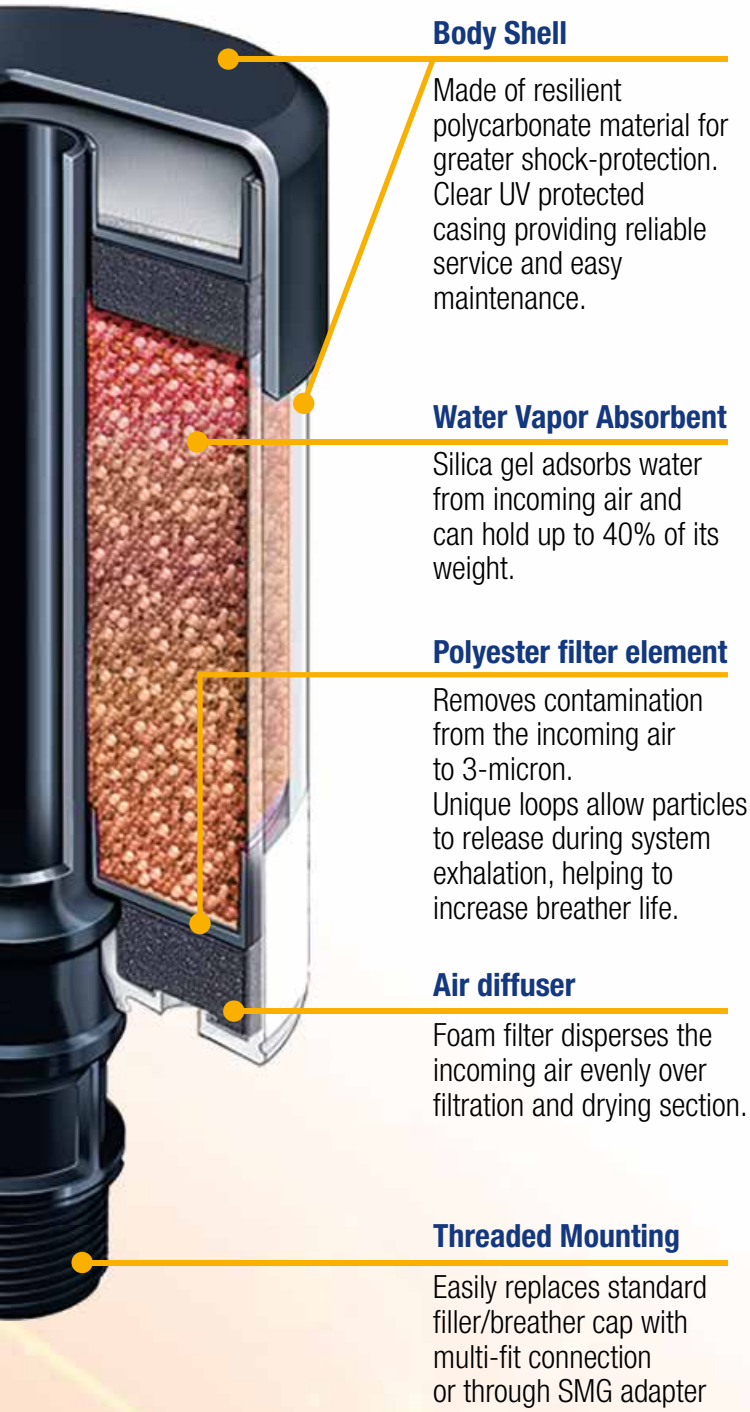
Individual air intakes are opened based on flow requirements of the system. Plugs protect unit during shipping and storage.

## Integrated Standpipe

Excellent vibration resistance, dissipates impact throughout the unit - eliminating weak points, and allows even airflow distribution



## Protection from moisture and particulate contamination in lubricant and equipment



### Body Shell

Made of resilient polycarbonate material for greater shock-protection. Clear UV protected casing providing reliable service and easy maintenance.

### Water Vapor Absorbent

Silica gel adsorbs water from incoming air and can hold up to 40% of its weight.

### Polyester filter element

Removes contamination from the incoming air to 3-micron. Unique loops allow particles to release during system exhalation, helping to increase breather life.

### Air diffuser

Foam filter disperses the incoming air evenly over filtration and drying section.

### Threaded Mounting

Easily replaces standard filler/breather cap with multi-fit connection or through SMG adapter

### 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 the 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

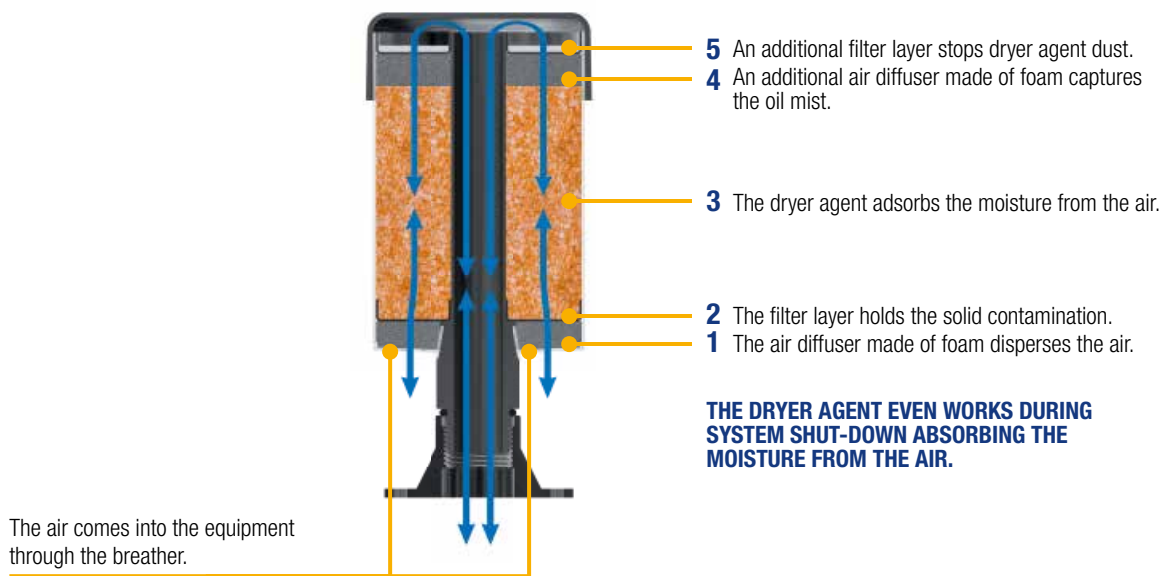
It also causes damage in the hydraulic systems:

- ✗ Creation of rust in the hydraulic tanks
- ✗ Wear and tear on equipment

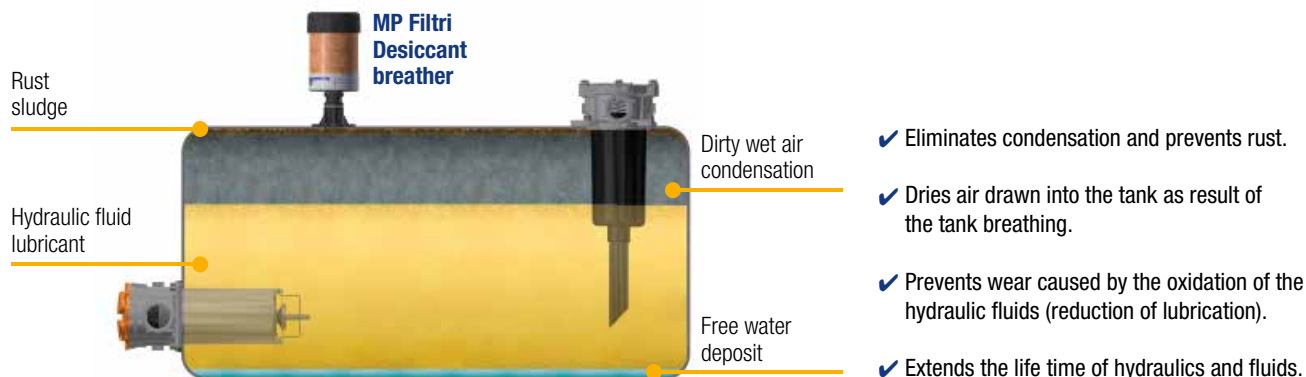
# SAW 115 GENERAL INFORMATION

Focus on

## How does SAW Series works



## SAW Series Benefits



## Applications

### Where is SAW series used?

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 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

Hydraulic systems



Oil storage



Renewable energy



Gearbox



Transformers



Tanks



# 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 dessicant beads strip harmful moisture.

While in service or during shut-down, the dessicant 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

## 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



Max hydraulic flow rate [ l/min (cfm) ]	Holes to open
up to 110 (4)	2
from 111 to 220 (4-8)	4
from 221 to 330 (8-12)	6
from 331 to 452 (12-16)	8

## Technical data

### Materials

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

### Filter Efficiency

3µm absolute (B<sub>3</sub> ≥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, 1cfm)



## Performances

Series	Length	Max hydraulic flow @ 7 kPa (1 psi) [ l/min (cfm) ]	Water Absorption Capacity [ ml (fl.oz) ]	Recommended max volume		Silica gel weight [ kg (lb) ]	Total weight
				Gearbox / Storage tank [ l (gal) ]	Hydraulic reservoir [ l (gal) ]		
SAW115	1	453 (16)	118 (4)	757 (200)	227 (60)	0.32 (0.70)	0.60 (1.32)
SAW115	2	453 (16)	220 (7.45)	1325 (350)	379 (100)	0.56 (1.23)	0.90 (1.98)
SAW115	3	453 (16)	333 (11.3)	1893 (500)	757 (200)	0.84 (1.88)	1.20 (2.64)

# SAW 115

## Designation & Ordering code

COMPLETE BREATHER	
Series and size <b>SAW115</b>	Configuration example : SAW115 1 G 03 A 0 0 P01
Length <b>1   2   3</b>	
Connections to the tank <b>G</b> Thread 1"	
Filtration rating <b>03</b> Orange Silica Gel	
Seals <b>A</b> NBR	
Valve <b>0</b> Without valve	
Option <b>0</b> Standard	
<b>Execution</b>	
<b>P01</b> MP Filtri standard	
<b>Pxx</b> Customized	

ACCESSORIES	
Series and size <b>SMG</b> Adapter Flange	Configuration example : SMG1 S A P02
Connections to the tank <b>S</b> Without screws	
Seals <b>A</b> NBR	
<b>Execution</b>	
<b>P02</b> MP Filtri standard	

## Silica gel

Active breather



Depleted breather



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.

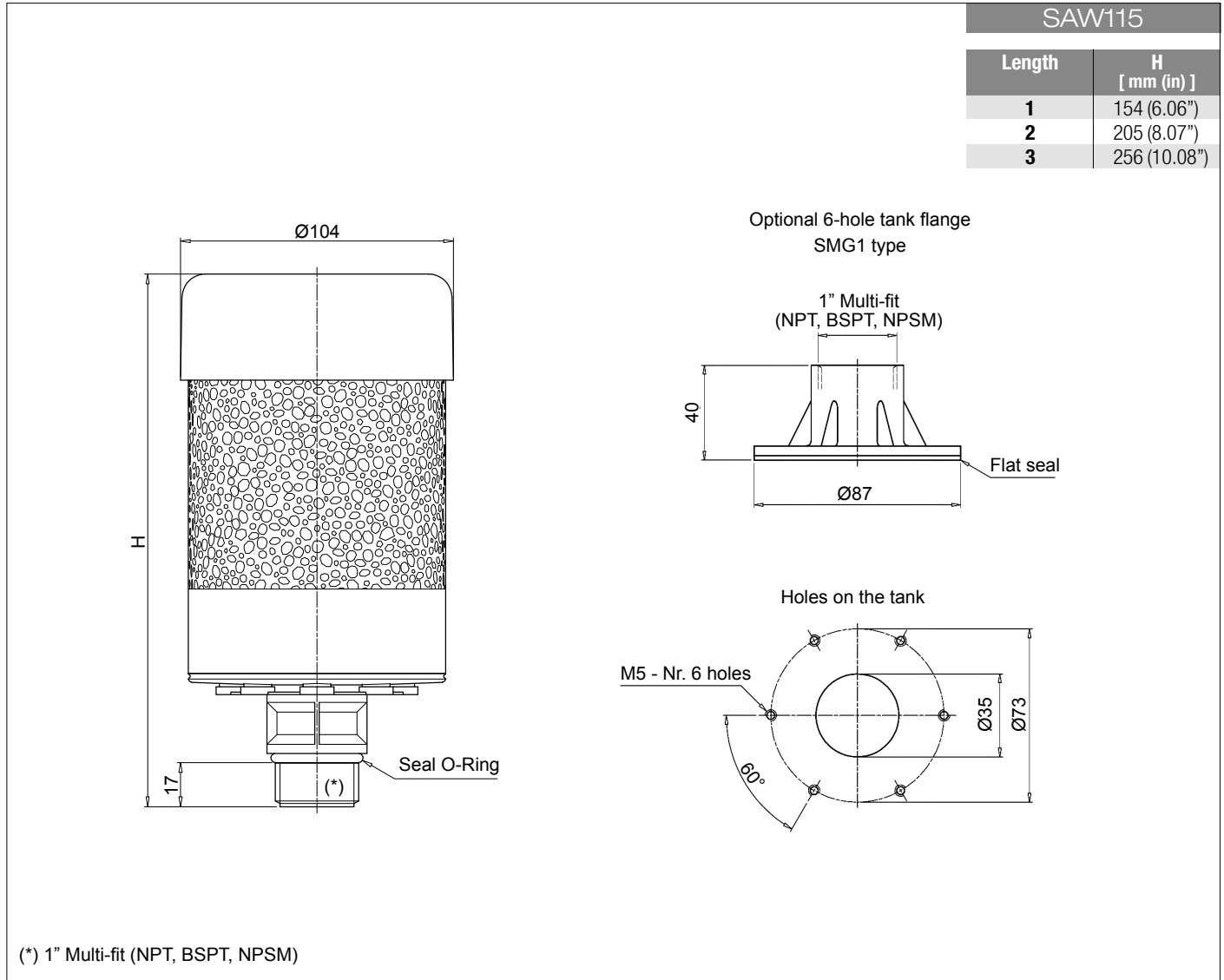
### IMPORTANT

Dispose of the exhausted silica gel according to the regulations in force in the country of use.



# SAW 115

## Dimensions



All data, details and words contained in this publication are provided for information purposes only.  
 MP Filtri reserves the right to make modifications to the models and versions of the described products  
 at any time for both technical and / or commercial reasons.  
 The colors and the pictures of the products are purely indicative.  
 Any reproduction, partial or total, of this document is strictly forbidden.  
 All rights are strictly reserved.



## WORLDWIDE NETWORK

### HEADQUARTERS

**MP Filtri S.p.A.**

Pessano con Bornago  
Milano - Italy  
+39 02 957031  
sales@mpfiltri.it

### BRANCH OFFICES

**ITALFILTRI LLC**

Moscow - Russia  
+7 (495) 220 94 60  
mpfiltrirussia@yahoo.com

**MP Filtri Canada Inc.**

Concord, Ontario - Canada  
+1 905 303 1369  
sales@mpfiltricanada.com

**MP Filtri France SAS**

Villeneuve la Garenne  
Paris - France  
+33 (0)1 40 86 47 00  
sales@mpfiltrifrance.com

**MP Filtri Germany GmbH**

St. Ingbert - Germany  
+49 (0) 6894 95652 2-0  
sales@mpfiltri.de

**MP Filtri India Pvt. Ltd.**

Bangalore - India  
+91 80 4147 7444 / +91 80 4146 1444  
sales@mpfiltri.co.in

**MP Filtri (Shanghai) Co., Ltd.**

Shanghai - Minhang District - China  
+86 21 58919916 116  
sales@mpfiltrishanghai.com

**MP Filtri U.K. Ltd.**

Bourton on the Water  
Gloucestershire - United Kingdom  
+44 (0) 1451 822 522  
sales@mpfiltri.co.uk

**MP Filtri U.S.A. Inc.**

Quakertown, PA - U.S.A.  
+1 215 529 1300  
sales@mpfiltriusa.com

**PASSION TO PERFORM**



mpfiltri.com