

## INNOVATION FOR VARIOUS INDUSTRIES

### Efficient air breathers for hydraulic tanks

In modern industry, ventilation dryers play a crucial role, especially in the ventilation of mobile and stationary hydraulic tanks. The BFSK type air breather from Hengst Filtration are used primarily when the ingress of moist air into the hydraulic tank must be effectively reduced in order to prevent water from dissolving in the medium and negatively affecting its properties.

### More than just air circulation

In order to avoid overpressure or underpressure in hydraulic tanks, the need for efficient air exchange is essential. When liquid is pumped out of the tank, a negative pressure is created that must be compensated by incoming ambient air. This incoming air is filtered by the ventilation dryers from Hengst Filtration to prevent dirt particles from entering the hydraulic system. In addition, the water-adsorbing granulate removes moisture from the air, thereby increasing the service life of the medium and the service life of the hydraulic components, and reduces the formation of varnish, for example in connection with excessively high oil temperatures.

When liquid is returned to the tank, an overpressure is generated which evacuates the air in the tank through the air breather. The BFSK air breather from Hengst Filtration are also available with a check valve, which prevents air exchange during idle operation and thus extends the service life of the granulate.

### DIFFERENT APPLICATIONS

The possible uses of the ventilation dryers are diverse and range from hydraulic circuits and the storage of liquids to specialized areas such as aviation, wind energy and the petrochemical industry.



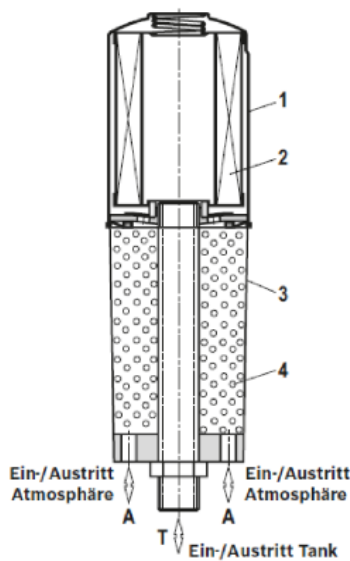
Hengst air breather type BFSK  
Picture source: Hengst Filtration

### Important features

- Highly effective filter material for fine particles
- High dirt-holding capacity
- Water adsorption from the air
- Replaceable filter cartridge and granulate as a refill pack
- Optional check valves for longer lifespan of the granulate
- Each pack contains a maintenance manual
- Optical contamination indicator to replace the cartridge in good time, optionally available

## Function and technology

For the proper operation of hydraulic systems, a continuous exchange of air in the fluid tank is essential. Temperature fluctuations lead to condensation, which can affect the quality of the lubricating oil. The **BFSK air breather** from Hengst Filtration make it possible to supply clean, dry air. These filters are equipped with a removable cartridge that contains an integrated filter element made of glass fiber with a fineness of 3 µm. In the lower area is the water-adsorbing granulate, which reduces the moisture in the air. When the granulate is saturated, it changes color from red to orange and it must be replaced.



## Advantages

- Non-toxic
- Non-carcinogenic
- No REACH registration required
- Consists of 75 % zeolite and 25 % silica gel
- stainless steel connection

## Increasing efficiency in wind power

Wind energy is a key pillar of the energy transition and makes a significant contribution to sustainable energy supply. In order for wind turbines to operate economically in the long term, trouble-free and reliable operation under a wide range of weather conditions is required. This is particularly true for the maintenance of gearboxes, which are of central importance for electricity generation from wind power.

## EFFICIENT LUBRICATION OF THE GEARBOXES

In order to efficiently convert wind energy into electrical energy, the primary gearboxes of the wind turbines must always be well lubricated. However, the demanding operating environment - characterized by dirt, temperature fluctuations and moisture - poses a particular challenge as it can affect the quality of the lubricating oil. Without suitable filtration and continuous monitoring of the oil quality and the use of drying systems, the risk of increased wear and a shortened service life of the system components increases. This in turn leads to more frequent maintenance work and higher operating costs.

## EXTENDED OIL LIFE THROUGH VENTILATING AND VENTILATION FILTERS

**The solution:** The BFSK from Hengst Filtration. A reliable solution that has a positive effect on the operating costs and service life of the systems. Moisture is removed from the ambient air and thus ensures a constant oil quality and thus extends the service life of the gearbox components. Any dirt particles that arise are filtered out by the high-quality glass fiber element.



The **BFSK air breather prevents** dirt and moisture from entering the hydraulic tank and thus helps to maintain the oil quality in the wind turbines. Operating costs and process interruptions are thus significantly reduced.

With its water-adsorbing ventilation filters, Hengst Filtration is definitely contributing to more sustainable and economical electricity production from wind energy. Hengst Filtration's product portfolio is a real added value for innovative lubrication solutions for the optimization of wind turbines and strengthens the basis for a future-proof energy supply.