

White Paper

Unlocking the Potential of Spin-On Filters OFCO "SP" Series



Exploring the Basics of Spin-On Filters: Design and Functionality

Spin-on filters have cemented their position as a cornerstone in the domain of liquid filtration and tank breather applications, thanks to their unique design and operational efficiencies. Fundamentally, these filters consist of a self-contained housing and filter element assembly, which facilitates straightforward installation and replacement. This design not only enhances the filtration capacity but also significantly reduces maintenance time and costs. Predominantly utilized in hydraulic systems, lubrication oil systems, and fuel supply lines, spin-on filters excel at removing particulates and contaminants, thereby safeguarding critical system components and extending their service life. The widespread adoption of spin-on filters across various industries underscores their effectiveness in improving system cleanliness and reliability.

The Advantages of Using Spin-On Filters

Let's delve into the benefits that spin-on filters afford, particularly highlighting their operational efficiency, streamlined servicing processes, and the substantial decrease in maintenance expenditure they afford, more so in environments fraught with contamination or presenting challenging operational conditions. Primarily, the efficiency of spin-on filters stems from their advanced filtration capabilities, designed to meticulously purge particulate matter, thereby safeguarding hydraulic systems against potential pollutants.

This intrinsic property is pivotal in prolonging equipment life and optimizing performance. Further, the ease of service associated with these filters—owing to their spin-on design—allows for quick, mess-free replacement, markedly reducing downtime. Lastly, in consideration of maintenance costs, the use of spin-on filters in adverse settings notably diminishes the frequency and necessity for complex maintenance interventions, leading to a significant curtailment of operational expenses.

Applications and Benefits for Spin-On Filters

Spin-on filters have carved a niche in diverse sectors, showcasing their adaptability from fluid conditioning systems to the rigorous demands of mobile and agricultural machinery. Their design caters to a broad spectrum of applications, ensuring that hydraulic systems,

engines, and lubrication processes are free from contaminants. This versatility not only underscores their utility in maintaining the integrity of equipment but also highlights their role in enhancing operational efficiency across various industries. By integrating spin-on filters, businesses can safeguard their machinery against the detrimental effects of contamination, thereby optimizing performance and prolonging equipment lifespan. General applications include the following...

- · Fluid conditioning systems
- · Drainage lines
- · Transfer of fluids
- · Hydrostatic loading pumps
- · Power transmissions
- · Closed loop systems
- Mobile equipment (cement trucks, mobile cranes, waste management trucks, tankers, etc.)
- · Agricultural equipment
- · Power packs
- · Earth moving equipment
- · and many more applications.

In reality, any machine or equipment that uses hydraulic fluid can be an application for spin-on filters.

Benefits of Spin-on filters are...

- · Compact design and quality
- · Easy to install
- · Quick replacement
- · No leaks during the maintenance operations, as oil is contained inside
- · Made with oxidation resistant materials (aluminum heads)
- · Optimal performance in any operational and environmental context
- As an additional usage for removing water from hydraulic fluid flowing through the system
- · As a reservoir breather

Installation and Maintenance Simplified

Ease of use is a hallmark of spin-on filters, and this extends to their installation and maintenance processes. You'll find that attaching these filters to your system is a straightforward task, thanks to their design that allows for a secure, no-leak connection. When it's time for maintenance, the quick replacement process minimizes downtime, ensuring your operations continue smoothly. Moreover, these filters are crafted from oxidation-resistant materials, offering an added layer of durability against the elements. This combination of easy installation, simple maintenance, and robust construction makes spin-on filters an ideal choice for keeping your machinery running efficiently.

Enhancing Performance in Any Condition

Spin-on filters are your frontline defense, ensuring peak performance under varying operational and environmental stresses. Their robust design excels in removing particulates and, notably, with a water removal spin-on, water from hydraulic fluids—a critical function for maintaining system integrity and efficiency. This dual capability to filter contaminants and separate water underlines their versatility, making them indispensable in scenarios where moisture intrusion is a concern. By leveraging these filters, you're not just protecting machinery; you're optimizing its performance, regardless of the challenges posed by the working environment or the nature of the fluid being filtered.

The Role of Spin-On Filters in Tank Breathing



Tank Breather Adapter

Imagine a tank as a living, breathing entity. Just as lungs require clean air to function optimally, tanks need pristine environments to operate efficiently. Here's where spin-on filters, equipped with breather adapters, shine. They act as guardians, meticulously controlling the air that enters and exits the tank. This process, known as tank breathing, is crucial for preventing contamination. By filtering out particulates and moisture from the air, these filters ensure that the internal environment of tanks remains uncontaminated, safeguarding the quality of the fluids inside and prolonging the lifespan of the tank and its contents.

Technical Specifications and Options

Diving into the nuts and bolts, spin-on filters are designed with a keen eye on technical excellence. At their core, the filter elements are engineered for maximum contaminant removal efficiency. Surrounding this, the aluminum heads provide a sturdy, corrosion-resistant housing, ensuring longevity and reliability. Bypass valves, a critical component, are calibrated to precise specifications, allowing for seamless operation under varying pressure conditions. Additionally, the tank breather adapter plays a pivotal role in maintaining the purity of tank environments. Understanding these specifications arms you with the knowledge to match the right filter to your needs.

Choosing the Right Spin-On Filter: OFCO's SP Series

When you're on the hunt for the perfect spin-on filter, the OFCO SP Series stands out as a prime candidate. Tailored for a variety of applications, these filters are distinguished by their high filtration efficiency and robust design. To select the most suitable model, consult OFCO's specification sheet, which details critical parameters such as flow rate, filtration media type, and bypass valve settings. Matching these specifications with system requirements ensures optimal performance and protection. Remember, the key to a successful recommendation lies in understanding the unique demands of each application and how the SP Series can meet them.

OFCO Products Available

With filter elements that have a filtration level of 10 and 20 micron cellulose, 100 micron wire cloth, 3, 10, and 25 micron microglass, and 10 micron micro-glass/water absorbent, OFCO has you covered. The aluminum heads are available with ¾" npt connections. Heads with bypass valves are available with a 5 psi suction and 25 psi return line pressure. Gauges are also available for mounting on the heads.

The tank breather adapter is available with a 3/4" inch npt thread to be mounted into a port on the reservoir and used as a tank breather. As a tank breather, there is approximately 450 sq. in. of filter media in the element which will allow approximately 800 cfm.

Conclusion: Why Choose OFCO Spin-On Filters

OFCO spin-on filters epitomize the pinnacle of filtration technology, merging ease of maintenance with unparalleled efficiency. Their robust design, tailored to withstand diverse operational demands, positions them as the optimal choice for safeguarding machinery and equipment. By integrating these filters, it not only enhances performance but also extends equipment longevity. Embrace OFCO's spin-on filters to elevate your strategy, ensuring you benefit from the highest standards of fluid cleanliness and system reliability.

OFCO Spin-on Filters