Filtration Products

TWF Twinfil series
01.NR 1000 series
01.NR 1000 Twinfil series

Filter systems and elements for wind turbine gearboxes

EATON
Powering Business Worldwide

It is particularly important that wind turbine lubricants provide appropriate protection of gearboxes against corrosion, wear and tear. Most lubrication and hydraulic systems failures are caused by oil contamination from dirt and moisture. That is why proper oil maintenance, monitoring, and filtration are an essential part of preventive, structured maintenance programs.

Eaton combines sales, engineering, manufacturing, customer service and technical sales support into one focused business objective: Provide customers with optimum filtration solutions.

TWF Twinfil filter systems

Eaton's compact TWF Twinfil filter systems provide reliability, durability and efficiency to the wind turbine gearbox and its lubrication system.

Features:

- Specially designed gear lubrication systems
- Reliably supplies all gear lubrication option points as it filters and de-aerates the system
- 6 bar bypass filtration integrated
- Hydraulic scheme according to customer specifications
- Simplified mounting eliminates misalignment issues

Benefits:

- Significant weight reduction over previous model
- Top level filtration quality
- Low maintenance needs and downtime
- Low noise emission
- Simple to service
- Seawater resistant

Technical data:

	TWF 2000	TWF 4000	TWF 6000
Operating pressure	25 bar		
Operating temperature	-10 to +100°C		
Flow rate	160 l/min*	240 l/min*	320 l/min*
Weight	Approx. 50 kg	Approx. 120 kg	Approx. 165 kg
Housing material	Anodized aluminum		
Options	Motor/Pump available upon request		

* 20°C, ISO VG 320

Additional sizes available on request.

TWF Twinfil 4000 filter system

Anodized aluminum gear lubricant filter system that reliably meet performance requirements of wind turbine applications.

Eaton's hydraulic filtration product line features more than 4,000 high-quality filter elements with a high dirt-holding capacity to ensure consistent filter efficiency and long element life. These elements are available with various filter materials, different construction types and micron ratings to help protect critical system components.

Filter elements

The TWF Twinfil filter system relies on a combination of a 01.NR 1000 filter element available in different fineness levels and a 2-stage Twinfil filter element.

The Twinfil filter element is specifically designed for wind power applications to ensure that the gearbox is never lubricated with unfiltered fluid. It couples the upper coarse filter made of stainless steel wire mesh with a nominal fineness of 25 µm with a fine filter made of 10 µm high-performance glass fiber fleece below.

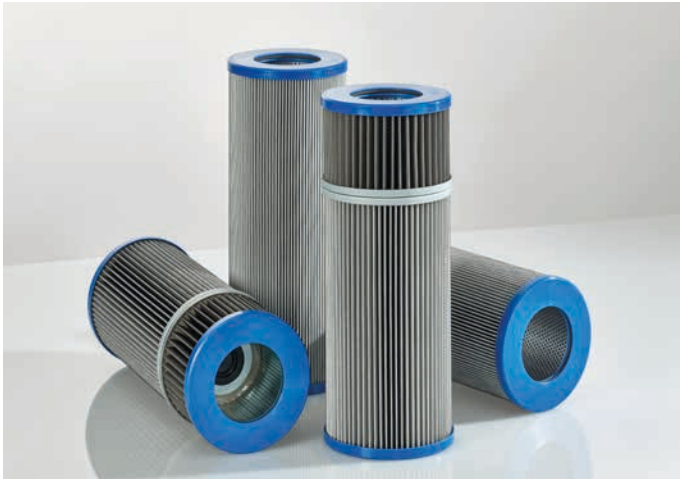
These two parts are separated by a bypass valve which possesses an opening pressure of 3.5 bar. The valve is designed to protect the fine filter from any damage due to high viscosity at low temperatures and provides permanent filtration by the fine filter when closed.

Features:

- Combination of filter material provide up to three different levels of fineness for optimal results
- Continuous filtration is guaranteed by bypass valve
- Consistent filter efficiency and ß ratio even at high differential pressure

Benefits:

- Improved system reliability
- Lower maintenance costs
- Extended life time



01.NR 1000 and Twinfil return-line filter elements

Nominal size: 1000 (10 bar)
The double-open end filter elements with Viton sealings meet DIN 24550-4 standards and are ideal for use in return-line filters to reduce oil contamination.

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