

Filter systems
and elements
for wind turbine
gearboxes



Powering Business Worldwide

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

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.

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
- Indicates oil operating condition
- Operates in cold weather conditions with an additional pump-assisted heating 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 β ratio even at high differential pressure

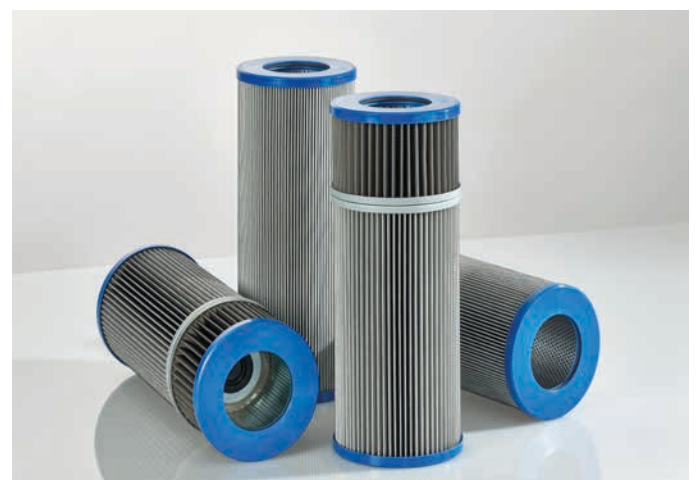
Benefits:

- 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.



North America
44 Apple Street
Tinton Falls, NJ 07724
Toll Free: 800 656-3344
(North America only)
Tel: +1 732 212-4700

Europe/Africa/Middle East
Auf der Heide 2
53947 Nettersheim, Germany
Tel: +49 2486 809-0
Friedensstraße 41
68804 Altlußheim, Germany
Tel: +49 6205 2094-0

An den Nahewiesen 24
55450 Langenlonsheim, Germany
Tel: +49 6704 204-0

Greater China
No. 7, Lane 280,
Linhong Road
Changning District, 200335
Shanghai, P.R. China
Tel: +86 21 5200-0099

Asia-Pacific
100G Pasir Panjang Road
#07-08 Interlocal Centre
Singapore 118523
Tel: +65 6825-1668

**For more information, please
email us at filtration@eaton.com
or visit www.eaton.com/filtration**

© 2021 Eaton. All rights reserved. All trademarks and registered trademarks are the property of their respective owners. All information and recommendations appearing in this brochure concerning the use of products described herein are based on tests believed to be reliable. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Eaton as to the effects of such use or the results to be obtained. Eaton assumes no liability arising out of the use by others of such products. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

EN
09-2021