### Filtration Products

# Hydraulic oil filter Quality and certificates in hydraulic filtration processes

High-performance filters keep windmills, turbines, excavators and ships running by removing contamination from the hydraulic oil and thus ensuring high performance of the hydraulic system. Eaton uses its extensive industry know-how to offer reliable and high-performance hydraulic filtration solutions.

Whether in wind power, marine gear units, turbines, or mobile applications: hydraulic oil ensures that everything runs smoothly. To maintain lubricating properties and resistance to aging, impurities in the hydraulic oil must be removed.

Hydraulic oil filters bear a great responsibility: the entire hydraulic system can only run smoothly if they work reliably. For this reason, Eaton not only uses the highest quality filtration components but also offers comprehensive service and in-depth industry know how.

#### Flexibility and industry know-how

To maximize system efficiency, all components must work in harmony. To ensure this, when assisting customers with their specialized filtration systems, Eaton relies on an extensive knowledge base of hydraulic systems and operating environments.

Since Eaton's hydraulic oil filters are used in highly specialized applications, filter manufacturing follows a buildto-order (BTO) and engineerto-order (ETO) approach. All products are made to order



according to the customer's requirements and specifications – from individual items to series production. The more specific the application, the more complex the acceptance requirements and required certifications. Eaton not only supplies high-performance filtration solutions, but also provides for many products the necessary certificates for a wide range of markets including heavy industry, wind power, gas and steam turbines, surface mining and marine applications.

Whether PED, AD2000, EN13445 and ASME or industry-specific regulations such as ABS, BV, DNV or NKK for marine applications: customers can rely on the fact that all Eaton systems and components comply with the applicable standards and certificates. Calculations based on other regulations can also be implemented upon request. By conforming with industry standards, customers are ensured that the filters will operate as expected. This saves time and money during system commissioning and operation.



The global network of qualified and certified suppliers ensures that all applicable requirements are met along the entire supply chain – for maximum reliability with every component.

#### Advice and service

At Eaton, customers get what they need for smooth operation in their industry - even if they do not yet know which product solutions they need for their application-specific requirements. In individual cases, extensive consulting services in advance ensure that new systems are also equipped with the correct hydraulic filter system right from the start. Product design and inspection specifications, such as those in an individual inspection and test plan (ITP), take place together with the customer to ensure that all requirements are met.

In accordance with the performance requirements and process parameters for each application, customers always receive the optimum filtration protection.

#### **Quality and reliability**

Eaton filtration products have proven themselves in a wide variety of industries with high demands on quality and reliability. This includes inline and offline filtration as well as fluid condition monitoring products designed for use on critical systems in harsh environments. These state-ofthe art systems can be used to control operation and manage measurement data.



If a complication with a customer's system arises, Eaton has a filtration laboratory with skilled technicians ready to assist for a quick diagnosis. Our laboratory offers services for component and oil analysis.

Tailor-made quality for the most demanding industries and harsh environments: Eaton's hydraulic oil filter systems ensure smooth operation in every application.

## Simply explained: Which organizations and regulations are behind the most important abbreviations in the field of hydraulic oil filtration?

Abbreviation	Explanation
PED	Pressure Equipment Directive 2014/68/EU
AD2000	Set of rules of the German Pressure Vessel Working Group (Arbeitsgemeinschaft Druckbehälter) on basic safety requirements that must be observed according to PED
EN13445	European Norm for pressure vessels
ASME	American Society of Mechanical Engineers
ABS	American Bureau of Shipping; American society for global classification services for the marine, offshore and gas industries
BV	Bureau Veritas, French inspection, classification and certification society
DNV	Merger of the classification societies Det Norske Veritas and Germanischer Lloyd. DNV's Maritime division creates standards for ships and offshore units.
NKK	Nippon Kaiji Kyokai, Japanese classification society for marine applications

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

100G Pasir Panjang Road

#07-08 Interlocal Centre

Singapore 118523

Tel: +65 6825-1668

Asia-Pacific

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

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