

FACT SHEET

Oil separation systems

ElringKlinger's passive and active oil separation systems are designed to separate oil droplets from blow-by-gas in the ventilation system path of combustion engines and are key components to support the robust engine lifetime durability function.

Technology

Oil separators separate oil mist of the blow-by gas before it is redirected in the air intake system of the engine. The highly efficient oil separation system protects the air intake system against an overload of oil leading to soot deposits, which possibly dam-

age critical parts such as the turbo chargers, charge air coolers or particle filters in the exhaust line. Besides the protection function of engine components, the oil consumption and the environmental impact of the engine can be improved as well.



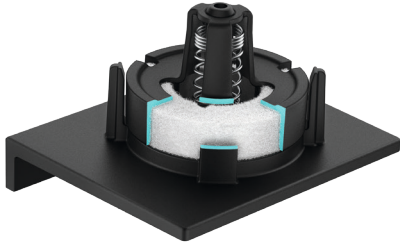
IMPACTOR FLEECE SYSTEM – IFS (PASSIVE SEPARATION SYSTEM)

The IFS system provides highest oil separation performance with minimal energy consumption. Besides the given blow-by flux no additional energy is needed to separate even the smallest oil droplets. The system can also be used as a stand alone separator but typically it is integrated into cam cover systems (For further details, please see fact sheet "Cam cover modules").



VARIABLE IMPACTOR FLEECE SYSTEM – CIFS+ (PASSIVE SEPARATION SYSTEM)

The CIFS+ system uses the highly efficient technology of impactor fleece systems. By the additional capability of self-adjustment in respect to different blow-by fluxes under various engine loads, the system provides excellent separation efficiency in all operation conditions. Moreover, high blow-by fluxes up to 400 l/min can be covered.



VARIABLE IMPACTOR FLEECE SYSTEM – TVA (PASSIVE SEPARATION SYSTEM)

The TVA system uses the same basic impactor fleece technology as the IFS and CIFS+ systems. It also incorporates the self adjustment capability of the CIFS+ system by use of a spring/plunger design. At the same time it claims less space and utilizes higher efficiencies and adds additional robustness compared to our standard IFS and CIFS+ systems.



SOLUTIONS FOR EU7 APPLICATIONS – SEMI-ACTIVE SEPARATION SYSTEM

To meet future legislations, ElringKlinger has developed a highly efficient semi-active separation system. It includes the use of a high efficiency passive separator (e.g. TVA) in combination with an electrical vacuum pump. This combination can provide outstanding separation performance while safely maintaining a negative crankcase pressure.

Benefits

- + High separation efficiency
- + Space saving solution
- + Life time application
- + Easy integration into the ventilation path e.g. cam cover
- + Best selection of separator technology possible regarding cost, efficiency and function



ELRINGKLINGER – YOUR PARTNER FOR OIL SEPARATION SYSTEMS

Product Development (Design, Engineering and Simulation) – Process Development – Tool Shop – Tool Sampling/Prototyping – Testing – Change-Management – Series Production – Part Measurement

YOUR CONTACT

ElringKlinger AG
Phone +49 7123 724-0
E-mail info@elringklinger.com

ElringKlinger AG | Max-Eyth-Straße 2 | 72581 Dettingen/Erms | Germany
www.elringklinger.com

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