

Oil separation systems



GENERAL FUNCTION

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 damage 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").



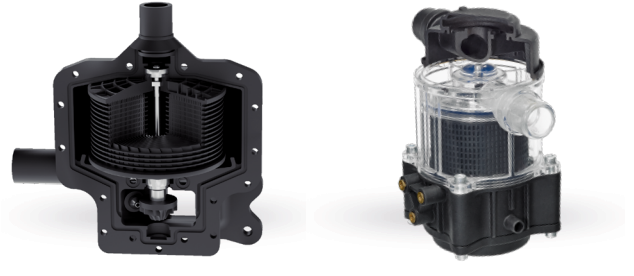
VARIABLE IMPACTOR FLEECE SYSTEM – CIFS + (PASSIVE SEPARATION SYSTEM)

The CIFS+ system uses the high 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.



OIL SEPARATOR ADD-ONS (ACTIVE SEPARATION SYSTEMS)

Passive oil separator systems can be combined with different add-ons to further improve the efficiency of passive systems. Ejectors or pumps as add-ons allow to increase the possible energy consumption providing higher separation efficiency.




CENTRIFUGE – ELRINGKLINGER PLATE SEPARATOR (ACTIVE SEPARATION SYSTEMS)

Centrifuges as active systems are able to separate smallest droplets by up to 99% in all engine conditions without influencing other engine parameters. Flat discs with low space requirements rotate with high speed (up to 16,000 rpm) and additionally, generate some vacuum forcing the blow-by gas to leave the engine. ElringKlinger's patented plate separator can be designed for commercial and passenger vehicles. Pressurized oil from the engine or an electric motor drive the disc stack.



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

Philipp Ruez
 Phone +49 7123 724-88350
 E-mail philipp.ruez@elringklinger.com

