



DrainGuard®

DrainGuard® is an innovative LEOS development that allows to drain condensation water from aircraft fuel tanks automatically. DrainGuard® improves the process and eliminates the associated negative impact on the environment and health risk to aircraft mechanics engaged in maintenance work.



The problem: time consuming and complex fuel drain procedure

Draining fuel tanks to check for water content and fuel quality has long been a difficult but essential aircraft maintenance task. There is always the risk that water in the fuel tank causes microbiological contamination, corrosion and freezing of fuel lines and fuel quantity indication trouble. Using water detectors in conjunction with a conventional draining bottle is a complex and time consuming procedure providing inaccurate results of water measurement. Additionally there is a potential health risk posed by the possibility that mechanics could come directly into contact with the fuel and there is always the risk that fuel will escape during the procedure and get onto the ground. Thanks to DrainGuard® an effective remedy is now at hand.

The solution: DrainGuard®

DrainGuard® is a new invention from Lufthansa LEOS in cooperation with FAUDI Aviation GmbH: an automated process for draining water out of aircraft fuel tanks. DrainGuard® is the first measurement system to be able to measure the water concentration non-stop during the draining process. DrainGuard®'s accuracy is measured in the parts per million (ppm) range. As soon as the water concentration of the drained fuel falls below a defined threshold, the draining process stops automatically. DrainGuard® indicates both the exact quantity of free water and the quantity of the drained fuel/water mixture in liters. DrainGuard® is designed as a closed system to avoid fuel spilling and is successfully employed in Lufthansa Technik's in maintenance operation.

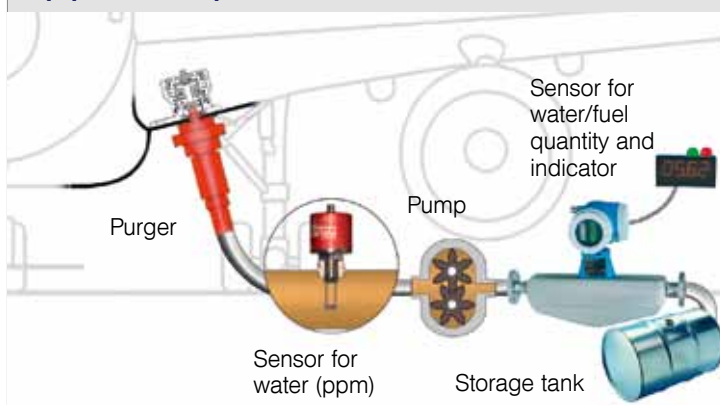
Customer advantages

- Reduced aircraft downtime
- Reduced manpower
- Easy and user-friendly handling
- Reduces the number of worksteps
- Protects the environment and the health of the aircraft mechanic due to elimination of fuel spills
- Aircraft maintenance quality enhanced thanks to accurate, standardized process
- Draining intervals can be extended as a result of accurate and consistent data

Technical Data

Measurements	free H ₂ O
Measurement precision:	
• Water quantity	100 ml
• Water detection	+/- 3 ppm
Flow rate	5 l/min
System pressure	16 psi (1,1 bar)
Tank volume	150 l (as required)

Equipment description



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