



Introduction of **VBR MetalSCAN as a service**

As of now MetalSCAN online detection and monitoring is also available as a service package at a monthly subscription fee. This all-inclusive option requires no CAPEX investment because all hardware and diagnostic information are incorporated in the monthly service fee.

Comparison chart

Early bearing and gearbox damage detection in LM gas turbines		MetalSCAN dual-sensor	MetalSCAN multi-sensor		
	ECD electronic chip detector	MetalSCAN single-sensor system	system NEW as a service	system as a service	VBR
In-line oil debris detection & monitoring		\checkmark	\checkmark	\checkmark	
Continuous online inspection, no engine stops		\checkmark	\checkmark	\checkmark	
Live monitoring and damage progress trending		\checkmark	\checkmark	\checkmark	
Generic early detection of failure		\checkmark	\checkmark	\checkmark	
More specified early detection of failure			\checkmark	\checkmark	
Expandable to multi-sensor monitoring			\checkmark	included	
Accurate early detection of failure				\checkmark	

MetalSCAN as a service

✓ At a monthly service fee

- ✓ No initial investment required
- ✓ Including remote technical support
- Including maintenance service package Including hardware and diagnostic information



MetalSCAN is the most effective early detection system for bearing damage in aeroderivative gas turbines available today. It is designed for very early detection of upcoming bearing failure and for continuous monitoring of the bearing damage progress over time.

Learn more about MetalSCAN as a service? Call: +31 88 010 9030 | global@vbr-turbinepartners.com

Metal**SCAN** ONLY BY GASTOPS

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NEW

No initial investment requíred

VBR MetalSCAN solutions

Metalscan

as a service!

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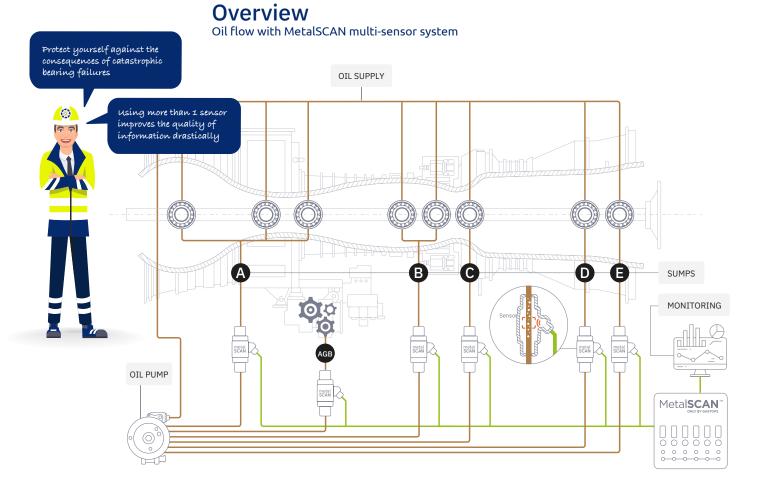


Purpose of MetalSCAN

Sudden bearing failure can happen in all aero-derivative gas turbines and cannot be predicted in an effective way yet. It will lead to unscheduled engine shutdowns, loss of production and revenue, extra repair costs and can even lead to expensive secondary damage in your GT engine. The best way to prevent these consequences of unexpected bearing failure is to detect the very beginning of a bearing damage and to closely monitor the bearing damage progress over time.

This bearing damage progress information will enable you to:

- ✓ Schedule a bearing or engine exchange stop
- ✓ Do so at a convenient moment for your business
- ✓ Prepare for a bearing or engine exchange on site
- ✓ Minimize engine outage time for repair or replacement
- ✓ Avoid expensive secondary damage to your GT engine
- ✓ Be more in control of your gas turbine operation



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