

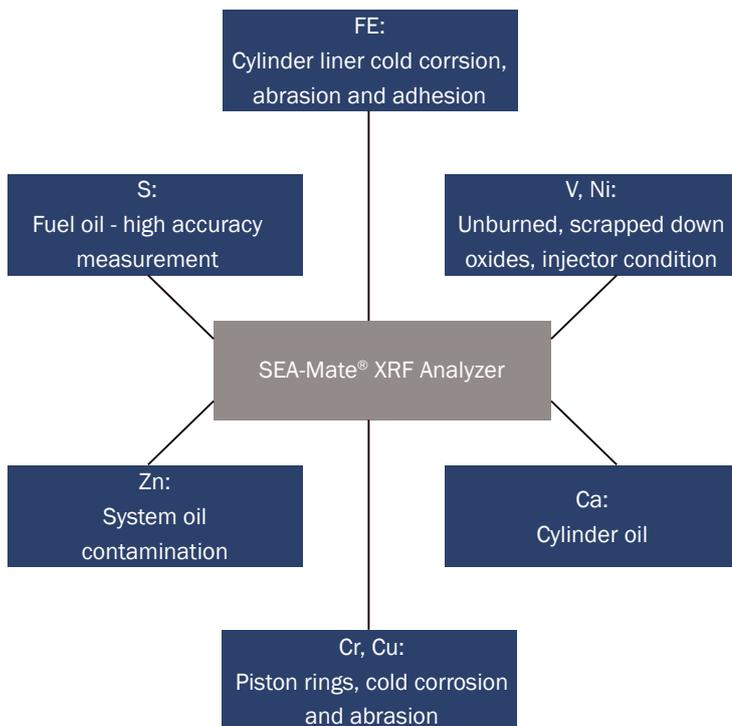
# SEA-Mate® M5000 Analyzer



The SEA-Mate® M5000 Analyzer is based on XRF technology. It is an accurate and easy-to-use on-board or on-site lubricant and fuel analysis tool, to help streamline maintenance management and reduce the net cost of operation and Total Cost of Ownership of your engine. Designed specifically for the maritime and power generation industries, the SEA-Mate® M5000 Analyzer delivers results

in minutes, rather than the standard two weeks when using shore laboratory - hereby putting critical diagnostic process control firmly back into your hands. Combined with the SEA-Mate® Blending-on-Board system, lubrication efficiency, total cost saving and reduced oil consumption, will take your vessel to the next level.

SEA-Mate® M5000 Analyzer  
measures the true and total iron content  
– abrasive and corrosive



## SEA-Mate® M5000 BENEFITS:

The accuracy and speed of the SEA-Mate® M5000 Analyzer enables you to identify issues before they become a problem:

- X-ray spectrometer allows precise quantification of wear elements inside the cylinder, reducing engine damage and cylinder oil feed rate by enabling immediate crew action.
- The SEA-Mate® M5000 Analyzer allows the measurement of iron originating from cold corrosion, abrasion or adhesion. Unlike many other onboard devices that only measure magnetic iron.
- A special sulfur function, for maximum accuracy to control the effective sulfur content of the fuel oil in use.
- System oil condition monitoring capabilities including the condition of specific components (bearings, gears, camshaft, etc.).
- On-the-spot analysis of how your engine is behaving helps reducing cylinder lube oil consumption and optimize Time Between Overhauls (TBO).
- Mapping of the engine's actual response to fuel sulfur and operational conditions to enable safe setting of optimal cylinder oil feed rate.

## ELEMENTS MEASURED AND RANGES:

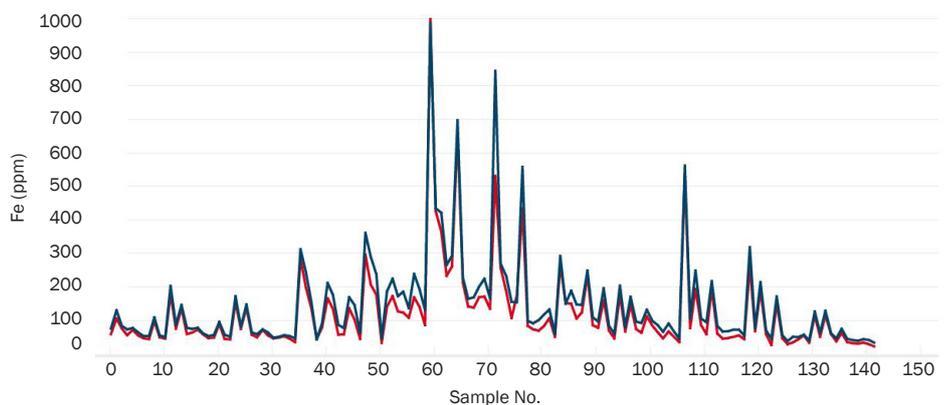
	S	Fe	Pb	Cu	V	Ni	Cr	Zn	Ca
Detection range / PPM	10-30,000	0-5,000	0-1,000	0-1,000	0-2,000	0-2,000	0-2,000	0-10,000	100-60,000

### Field Data

Extensive field tests on several vessels and power plants has been carried out. As the graphs show, there is excellent correlation between SEA-Mate® XRF Analyzer results and those from the same sample run at a land-based laboratory.

- SEA-Mate®
- DNV Norway

Scrape-down oil from MAN B+W 12K90MC - Iron analysis, High Wear Regime



System Specification	SEA-Mate® M5000
Dimension (LxWxH)	41 x 65 x 37 cm
Weight	27 kg
Ambient temperature	5-45 °C
Sample size	50 ml

For more information and contact details, please visit us at [www.marinefluid.dk](http://www.marinefluid.dk)