

Coating-on-Rod Thickness Analyzer



The new generation of analyzing the coating thickness on rods

3D measurement system made for the fast determination of thermal oxidation stability of aviation turbine fuels on heated tubes.

Benefits

+ Excellent value:

- Best performance and precision
- Thickness measurement in the nm range
- Auto calibration

+ Efficient:

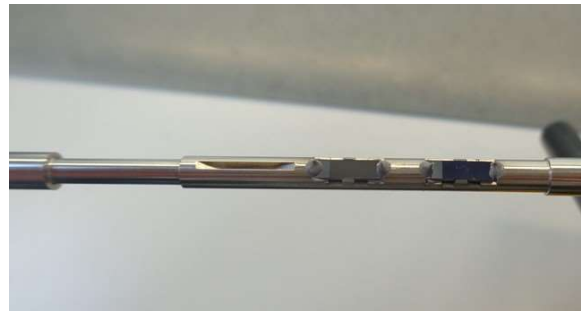
- Fast analysis, in less than 18 minutes
- Small size: 44.0 x 30.0 x 34.5 mm
(17.3" x 11.8" x 13.6")
- Acceptable weight with only 25 kg

+ Versatile:

- Fully automated measurement process
- Safe, completely enclosed laser light source with an optical detection system
- Large color display and a three-dimensional results representation

+ Precise – 'Precision in a class of its own':

- Averaging from 1200 measuring points
- Extreme precision in drive systems



Technology

The **Coating-on-Rod Thickness Analyzer** is the first quantitative and fully objective instrument for analyzing the D3241 thermal oxidation stability of jet fuels by measuring the heater tube deposit thickness based on the method of ellipsometry. The analyzer determines the average deposit thickness of a 2.5 mm² spot and the total deposit volume for the ultimate measurement of deposits in heater tubes according to ASTM D3241 standard (Appendix 3).

Drives	Superior motion system for rotation and linear high-resolution positioning
Sensors	Highest precision, low noise, optimized sensor ranges
Software	Integrated panel PC with Embedded Linux system and data visualization

Technical Parameters

Laser light source	Laser fiber EQ Photonics WSLP-1550-008m-9-DFB	Laser driver TETRA GmbH CW70 V 1.0
	Power up to 8 mW	Specially designed
	Temperature independent	Precisely tuned to laser fiber
	High precision alignment	High precision factory calibration

Drives	Translation motor ST4118L0804-B	Displacement compensation motor LS2818L0604-T6X2-75	Rotation motor ST2818S1006-B
Steps per 360°	200	200	200
Step accuracy	+/- 5%	+/- 5%	+/- 5%

Feature	Description
Fully automated	Simple insertion of test tube and starting measurement
Embedded laser source	Safe, completely enclosed laser light source
Optical detection system	Fully automated detection of the Tube geometry
Attached touchscreen	Large color display and a three-dimensional representation
Easy data export	Data easily exportable via USB

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