



## Elemental Analysis Solutions for the Petrochemical Industry



ASTM / ISO Compliant Sulfur,  
Nitrogen, and Chlorine Analyzers

## SLFA-60



The **SLFA-60** (our most popular ASTM D4294 compliant analyzer) introduces the new standard of transportable sulfur-in-oil analyzers. The software allows up to 15 separate calibration curves and the hardware is capable of meeting the growing changes in the industry. For accuracy and reliability, the sample jig tool allows for samples to be sealed and to remain leak free. 80mm wide printouts show sample ID, the X-Ray spectrum, date, time, average measurement value, standard deviation and the calibration curve graph.

**Analyzes:** Sulfur in Petroleum products such as heavy oil, naphtha, crude oil, and light oil.  
**Range:** 15 ppm to 9.9999 wt%  
**Repeatability:** 15 ppm or less (with a 1% sulfur sample).

**Sample Size:** 10 mL  
**Software:** Up to 15 separate calibration curves. Choose between linear or quadratic.

## SLFA-6000



The **SLFA-6000 Series**, which includes the SLFA-6100 and SLFA-6800 analyzers, measures sulfur-in-oil ranging from 5 ppm to 9.9999 wt%. This new, compact, and accurate analyzer meets the needs of anyone wishing to conform to ASTM D4294, ISO 8754 or JIS K2541/B7995. Featuring an optimized user interface, full-color monitor, data printout option, and an optional keyboard. A shutter for ease of use prevents X-ray leakage along with a new key switch function and a newly designed 8-station turntable for the SLFA-6800.

**Analyzes:** Sulfur in Petroleum products such as heavy oil, naphtha, crude oil, and light oil.  
**Range:** 5 ppm to 9.9999 wt%  
**Repeatability:** 5 ppm or less (with a 1% sulfur sample), 1.6 ppm or less (with a 0% sample).

**Sample Size:** 10 mL  
**Software:** Up to 5 sets of 3 calibration curves, to increase the accuracy and usability.

## MESA-7220V2



The **MESA-7220V2** measures both sulfur and chlorine in petroleum based products using the ASTM D7220 compliant Monochromatic EDXRF method. A monochromatic X-ray source is used in order to obtain an ultra-low noise background which affords the best detection limits for both sulfur and chlorine. The detector window size was increased to collect more fluorescent X-rays and thus achieve lower level ppm values. This provides excellent, repeatable performance at both low and high concentrations of both elements.

**Analyzes:** Chlorine & Sulfur  
**Range:** Sulfur: 0.7 ppm – 10.0 wt%, Chlorine: 0.6 ppm – 10.0 wt%  
**Sample Size:** 7 – 10 mL for each sample cell

**Software:** Max 60 calibration curves and 300 data points per curve, onscreen diagnostics, and easy to view results and statistics.

## Combustion Analysis

The **XPLORER-V** utilizes a 26 position liquid autosampler, vertically oriented furnace, and best-in-class detectors to deliver spot-on liquid sample results in 2.5 to 6 minutes, depending on the application. Optionally, the analyzer can be configured with sampling systems for the automated analysis of LPG and Gaseous matrices. The various system components are perfectly aligned, enabling accurate sample introduction, combustion, and conditioning, which create the ideal circumstances for unparalleled detection performances.

**Analyzes:** Nitrogen & Sulfur

**Range:** Low ppb to high ppm

**Method:** UV-Fluorescence and Chemiluminescence

**Sample Size:** Liquids: 5 - 250  $\mu$ L,

Gas: 10 mL sample loop,

LPG: 50 or 100  $\mu$ L sample loop

**Software:** TEIS software

### XPLORER-V



The **XPLORER-NS/S** was developed as a total nitrogen/total sulfur combustion analyzer. Providing fast, precise analysis of all phases; liquids, solids, and gases with an analysis range from low ppb to high ppm. It is designed to offer standardized and also customized solutions to match both current and future analytical needs. Fast and easy switching between modules results in high productivity. It complies with international standards like: ASTM, ISO, EN and IP.

**Analyzes:** Nitrogen & Sulfur

**Range:** Low ppb to high ppm

**Method:** UV-flourescence and Chemiluminescence

**Sample Size:** Liquids up to 100  $\mu$ L;

Solids 5 – 50 mg; Gas 10 mL;

LPG; 100  $\mu$ L

**Software:** dot.NET-based, TEIS software

### XPLORER-NS/S



The **XPLORER-TX/TS** was developed as a total halogen and sulfur microcoulometric combustion analyzer. It provides fast, precise analysis of all phases; liquids, solids, and gases with an analysis range from low ppb to high ppm. It is designed to offer standardized and customized solutions to match both current and future analytical needs. Fast and easy switching between modules increases productivity. Complies with many international standards like: ASTM, ISO, EN and IP.

**Analyzes:** Chlorine & Sulfur

**Range:** Low ppb to high ppm

**Method:** Microcoulometric

**Sample Size:** Liquids up to 100  $\mu$ L;

Solids 5 – 50 mg; Gas 10 mL;

LPG; 100  $\mu$ L

**Software:** dot.NET-based, TEIS software

### XPLORER-TX/TS





	SLFA-60	SLFA-6000 Series	MESA-7220V2	XPLORER-V	XPLORER-NS/S	XPLORER-TX/TS
<b>Conformity Standards</b>	ASTM D4294 (USA) ISO 8754 JIS K2541/ B7995	ASTM D4294 (USA) ISO 8754 JIS K2541/ B7995	ASTM D7220 ASTM D4294 ASTM D4929C ISO 8754 ISO 13032 ISO 20847	ASTM D4629, D5176, D5453, D6667, D7183, D7184, D7551 EN ISO 20846, UOP 936, UOP 981, UOP 987-A, NEN 17178	ASTM D5453 ASTM D6667 ASTM D7183 EN 20846 ASTM D4629 ASTM D5762 ASTM D6069 ASTM D7184 ASTM D7551	ASTM D4929 ASTM D5194 ASTM D5808 ASTM D7457 UOP 779 ASTM D3120 ASTM D3246 ASTM D3961

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## Sulfur-in-Oil Analyzers

HORIBA's series of sulfur-in-oil instruments have been the overwhelming choice in the petroleum industry for years. Continuous improvements in performance and usability allow us to offer a range of instruments to suit your requirements. From EDXRF to MEDXRF to combustion UV-Fluorescence, to and from combustion chemiluminescence to microcoulometry, HORIBA meets all of your needs.

View more product information online at:  
[www.horiba.com/int/oil/](http://www.horiba.com/int/oil/)



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