



**better analysis counts**

# HD Maxine



## Application Areas:

- Contaminants, Additives, Wear Metals.
- Refineries, Lubricant Plants, Engine Service Centers.
- Crudes and downstream hydrocarbons, lubricants and used oil.
- Elements: S, Cl, P, K, Ca, V, Mn, Fe, Co, Ni, Cu, Zn, Hg, As, Pb, Se.

## Features and Benefits:

- Fits on any bench.
- Plug-it-in and measure: no additional utilities required.
- Touch Screen user interface.
- Utilizes ACCU-CELL pre-assembled and pre-vented sample cups for enhanced precision, extreme ease-of-use and enhanced productivity.
- User programmable measurement time: 30-900 s.
- No sample dilution, conversion gasses, heating elements, quartz tubes or columns.
- Air-cooled excitation tube.
- Robust polyamide window for easy cleaning.

## Options:

- 8 cell Autosampler.
- LIMS data output software capability.
- Ink-jet Printer output.

## Trace Metal Analysis in Hydrocarbons

HD Maxine assures precise determination of trace metals in crudes, lubricants and used oils without extensive sample preparation or expensive consumables. The analyzer enables the direct analysis of metals from Phosphorus to Lead, at unprecedented detection limits in a robust analyzer configuration designed to perform in demanding petroleum and industrial environments. Plug it in and measure. Results with one touch. Unrivaled precision.

# HDXRF

**High Definition X-Ray Fluorescence (HD XRF)** is a multi-element analysis technique offering significantly enhanced detection performance over traditional ED or WD XRF. This technique applies state-of-the-art monochromating and focusing optics, enabling multiple select-energy excitation beams that efficiently excite a broad range of target elements in the sample. Monochromatic excitation dramatically reduces scattering background under the fluorescence peaks, greatly enhancing elemental detection limits and precision. HDXRF is a direct measurement technique and does not require consumables or special sample preparation.



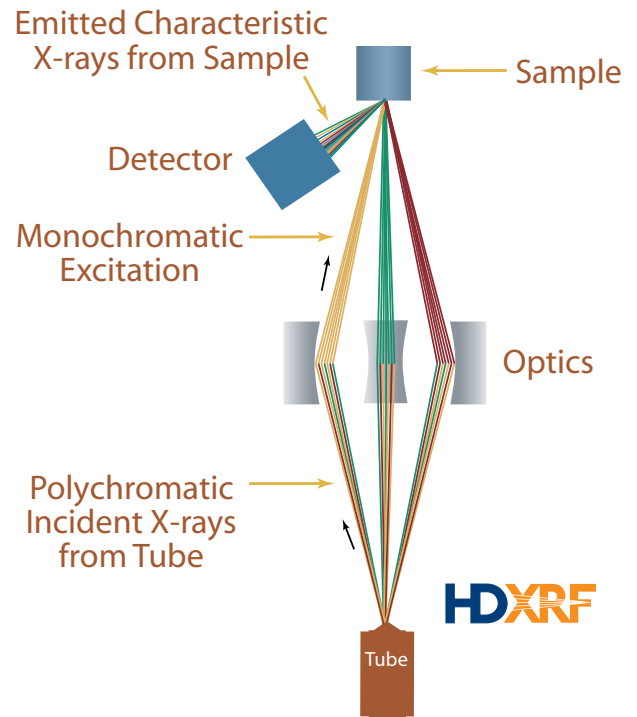
## Autosampler

- 8 sample cell capacity
- Increases productivity
- Utilizes XOS Accu-Cell cups



## ACCU-CELL Sample Cups

- No assembly of separate film & cup components
- Pre-vented sample cups
- Eliminates sample & cup contamination
- One discharge of 1 ml pipette will fill the cup



**HDXRF**

## Product Specifications

<b>Analysis Range</b>	Up to 5000 ppm
<b>Measurement Time</b>	300 s or 600 s
<b>Ambient Temperature</b>	5-35° C
<b>Facility AC Power requirements</b>	90-264 VAC, 47-63 Hz
<b>Tube voltage</b>	20-50 kV
<b>Tube current</b>	0.2 – 2 mA
<b>Power Consumption</b>	200 w Max.
<b>Analyzer dimensions</b>	41 cm (h) x 39 cm (w) x 53 cm (d)
<b>Analyzer weight</b>	23 kg
<b>User Interface</b>	Touch Screen
<b>Sample cell volume</b>	1 ml

## Target Elements and Detection Limits

Element	LOD (ppm) (300s)	LOD (ppm) (600s)
Phosphorous (P)	120	90
Sulfur (S)	60	40
Chlorine (Cl)	40	30
Potassium (K)	30	22
Calcium (Ca)	20	14
Vanadium (V)	1.0	0.7
Manganese (Mn)	1.0	0.7
Iron (Fe)	1.0	0.7
Cobalt (Co)	0.52	0.40
Nickel (Ni)	0.4	0.28
Copper (Cu)	0.2	0.14
Zinc (Zn)	0.2	0.14
Mercury (Hg)	0.12	0.08
Arsenic (As)	0.08	0.06
Lead (Pb)	0.1	0.08
Selenium (Se)	0.08	0.06



**better analysis counts**

15 Tech Valley Drive • East Greenbush, New York 12061, USA • 518.880.1500 • Fax: 5189.880.1510  
e-mail: [info@xos.com](mailto:info@xos.com) • website: [www.xos.com](http://www.xos.com)