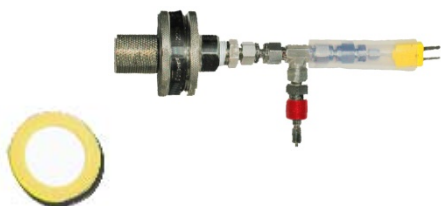


CES

XFM™ 720

X-ray Based Filter Method (XFM)



Key Features

- Metals Sampling System for PM and vapor phase metals
- Low detection limits: ng/m³ to mg/m³
- No handling of filters in the field necessary
- Filters shipped to lab or analyzed in field
- Simultaneous for up to 48 elements
- 10 minute changeover time
- No hazardous chemicals and no impingers
- Single operator required

The XFM is a multi-metal grab-sample method based on patented reactive filter technology and nondestructive X-ray fluorescence (XRF). An isokinetic sample of gas is extracted from a source, diluted, and drawn through a series of reactive and non-reactive filters that trap both particulate and vapor phase metals, including mercury, arsenic, lead, cadmium, and chromium. Following sample collection, a filter cassette is removed from the sampling train, and the resulting filter deposit analyzed for metals using non-destructive XRF procedures similar to those listed in EPA's Compendium Method IO-3.3.

Accurate, Precise, Simple, User Friendly

In this method, filters do not require handling during any part of the XFM procedure. They can be readily shipped to a laboratory for analysis or analyzed in the field. The XFM can provide an alternative to EPA Method 29 testing and provide results within hours to days of sampling. The method can be utilized prior to performance tests, thus minimizing chances of expensive test failures. The XFM is currently moving through the EPA equivalence process to become an approved alternative to M29.

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Applications

Hazardous waste incinerators, coal-fired power plants, municipal and medical waste incinerators, industrial furnaces and boilers, primary and secondary metal smelters, etc.

Product Specifications

Measurement Method	Based on EPA Method IO 3.3 – Determination of Metals in Ambient PM using XRF
Elements	Sb, As, Ba, Br, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mn, Ni, Se, Ag, Sn, Ti, Tl, V, Zn and more
Measurement Concentration Range	0 to 2 mg/dscm
Detection Limits	From 0.03 µg/dscm with 60 minute sample time
Sampling Time	10 to 60 minutes
Calibration Period	Component calibration required at least annually
Sample Flow	1-3 lpm
Relative percent difference	NA
Linearity	Correlation coefficient greater than 0.98
Control Box Size and Weight	18" (H) x 12" (W) x 17' (L), 50 lbs
Pump Box Size and Weight	9" (H) x 12" (W) x 17' (L), 12 lbs
Power Requirements	120 VAC/60 Hz, 20 amp
Operating Temperature	34 to 122 °F
Outputs	NA

- Notes: 1. Detection limits are determined using interference free data
 2. Power must be condition to maintain a factory warrantee or service agreement.

