The Milestone DMA-80: Innovation Delivered

For the past fifteen years, the Milestone DMA-80 has offered labs around the world unmatched direct mercury analysis productivity, accuracy, safety and performance.

Benefits

Productive
• Typical sample analysis time is five minutes, with no need for acid digestion or other wet chemistry sample treatment prior to analysis.

Sensitive
• An innovative mercury measuring system with a unique optical path spectrophotometer offers extremely low detection limits.

Efficient
• Both solid and aqueous samples can be analyzed with equal efficiency. A single method can be used to process organic and inorganic samples.

Convenient
• A built-in auto-sampler and easy push-button operation is appropriate for both laboratory and field settings.

Cost-Effective
• More than 70% in cost savings as compared to traditional mercury analysis techniques.

Flexible
• Easily upgraded from the basic dual-cell to tri-cell or wide-range configurations as needed.
• Add-on module available for gas analysis.

What It Is

The Milestone DMA-80 is a scalable, push-button, bench-top direct mercury analyzer that processes different sample types simultaneously — without the need for sample prep.

How It Works

1. A solid or liquid sample is weighed into a quartz or metal boat, and the sample weight is transferred from the analytical balance to the DMA-80.
2. Sample boats are loaded onto the instrument autosampler, where they are first dried and then thermally decomposed in an oxygen-rich furnace.
3. Mercury and other combustion products are released from the sample, carried to the catalyst section of the furnace, where nitrogen and sulfur oxides, halogens and other interfering compounds, are filtered and various species of Hg are converted to elemental Hg.
4. Mercury is selectively trapped, in a separate furnace, through gold amalgamation where combustion by-products are flushed off. The amalgamation furnace is heated and mercury is rapidly released.
5. Mercury is flown via the carrier gas into a unique block with a dual-cell or tri-cell arrangement, positioned along the optical path of the spectrophotometer, where it is quantitatively measured by atomic absorption at 253.65 nm.

About Milestone

With hundreds of DMA-80 Direct Mercury Analyzers installed around the world, Milestone is the recognized leader in direct mercury analysis. Committed to providing safe, reliable and flexible platforms to enhance lab productivity, we offer customers the very best in metals digestion, organic extractions, mercury analysis and clean chemistry processing, including the most advanced technology and ongoing technical support.

Learn more or request a demonstration.
Visit us at info@milestonesci.com or call 1-866-995-5100.