

915 JRG Speciating Mercury CEM

Real-Time Mercury Process Monitor
for Raw “Unscrubbed” Gas



your partner for mercury testing



Continuous mercury monitoring upstream of a scrubber poses a unique set of challenges due to the high concentration of various pollutants in the flue gas. The unpredictable nature of the flue gas composition from plant to plant also calls for customized solutions to each monitoring location. Ohio Lumex has performed extensive research in this area and has become proficient in designing mercury CEM equipment and sample conditioning techniques geared specifically towards successful mercury monitoring under very challenging conditions. The 915 JRG Mercury Process Monitor is the most advanced portable speciating mercury process monitor designed to perform Continuous Emissions Mercury Monitoring (CEMM) at pre-scrubber locations of emissions derived from combustion of coal, Portland Cement manufacturing, Municipal Incinerator's, etc.

ADVANTAGES:

- **True Continuous Monitoring**
- Proven to be **Rugged** at Outlet Locations (at stack) for Parametric Testing.
- High Sensitivity: Very Accurate at low mercury levels.
Detection: 0.1 to 100ug/m³ in real time, one sample point displayed per 30 seconds.
- **Easy to swap in the field or ship back for repairs to manufacturer.** Analyzer console is a modular self-contained system enclosed in an easily shippable Pelican case. This makes it easy to replace and service. Just remove console from the enclosure, set onto a pallet and ship back to Ohio Lumex. You can replace it with another console which is on standby at your location or overnighted to you from Ohio Lumex. Color coded connections minimize the replacement time to 1-2 hours.
- **Low Maintenance:** No Expensive Consumables. 2-3 Hours of maintenance on a quarterly basis. Optional yearly service by shipping only analyzer console back to Ohio Lumex.

915 J COMPONENTS:

It is a modular set designed for 8-hour installation time consisting of 4 easily movable or hoist-able modules:

Probe: 4 inch ANSI flange, optional lengths, 35-40 lbs. Hastelloy

Filter dilution conversion box: 35-40 lbs. Dry converter technology.

Temperature controlled analyzer enclosure: 150lbs. Fiberglass Enclosure is self-heated and cooled, ambient operational range -10-50°C, NEMA 4X. Rust proof. Undaunted with exposure to the elements.

Analyzer console box: 100 lbs. Provided in a rolling shipping pelican case for easy in-the-field replacement.



OHIO LUMEX *your partner for mercury testing*

With a pedigree of 15 years in mercury instrumentation, hundreds of stack testers, plants, and laboratories have turned to our analyzers when required to measure the concentration of mercury. At Ohio Lumex Company, the development of analyzers and products for the detection of mercury is our top priority. Further, we look at ourselves as your partner and will help you every step of the way. With customer service and technical expertise like ours on your side, not even the most challenging and demanding mercury analysis will stand in your way.



915 J Mercury CEM

The most advanced and modular mercury CEM with speciation capability

KEY FEATURES:

Spectrometer: The 915 J features a highly sensitive atomic absorption spectrometer with Zeeman background correction providing interference free measurements.

The Probe/Filter: Sampling is based on high velocity extraction, filtering, and dilution. No mechanical pumps are used and are instead replaced by plant air. Critical orifice provides precise sample dilution. The probe and filter are self-cleaning based on periodical blowback eliminating the "reactive ash" Hg scrubbing effect. Conversion is thermal at 750°C measuring Total Hg. Speciation is provided by bypassing converter and measuring Elemental Hg only.

Calibration: Built in Elemental Hg calibrator with low span (2-5 ug/m³). No other calibration source required.

Umbilical Lines: Heated line from 10ft to 50ft (others available).

Data Acquisition/Communications: Built-in industrial grade computer, real time readings with Excel data file or direct communications with ESC8832 via Modbus TCP. On-Line remote data transfer and analyzer control/calibration capabilities.

Utilities Requirements: Power: 3 110/220 volt lines set for 15 amp Breakers, 2000 watts Total. Compressed air (dry, -40°C), 1 SCFM at 80 PSIG or plant air at 2 SCFM at 85-90 PSIG.



WARRANTY:

The system is assembled and tested in Solon, Ohio. The system must pass The Factory Assessment Testing which includes a 7 Day Calibration Error Test, Linearity Check, 3 Level System Integrity Check, and a Cycle Time Test per Method PS 12A. One year 100% warranty on parts and labor, except consumables (filters, heaters, scrubbers, converter and Hg lamp).



your partner for mercury measurement success

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MINIMIZE YOUR COSTS FOR MERCURY REDUCTION. ASK US HOW WE CAN HELP!

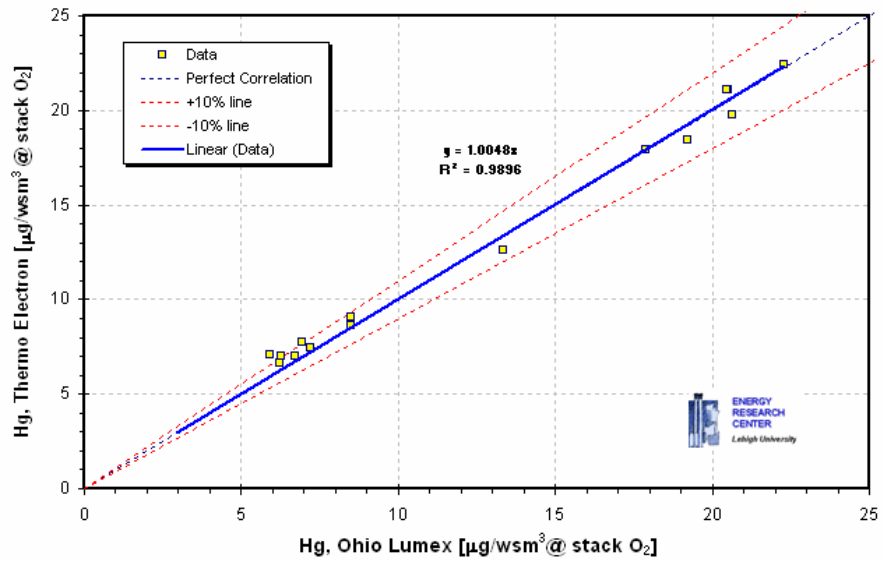
STUDY RESULTS FOR OUR CUSTOMERS REFERENCE

According to the study conducted in 2007 by Dr. Nenad Sarunac (Lehigh University), Jeffrey Ryan and John Schakenbach (U.S. EPA) at Allegheny Energy's Armstrong Power Station in Adrian, PA (known as Armstrong Project*), the Ohio Lumex Mercury Process Monitor is in excellent agreement with OHM (Ontario Hydro Method) and Sorbent Traps and performed equal to or better than the competition (there were 3 other mercury monitors vendors presented in the study).

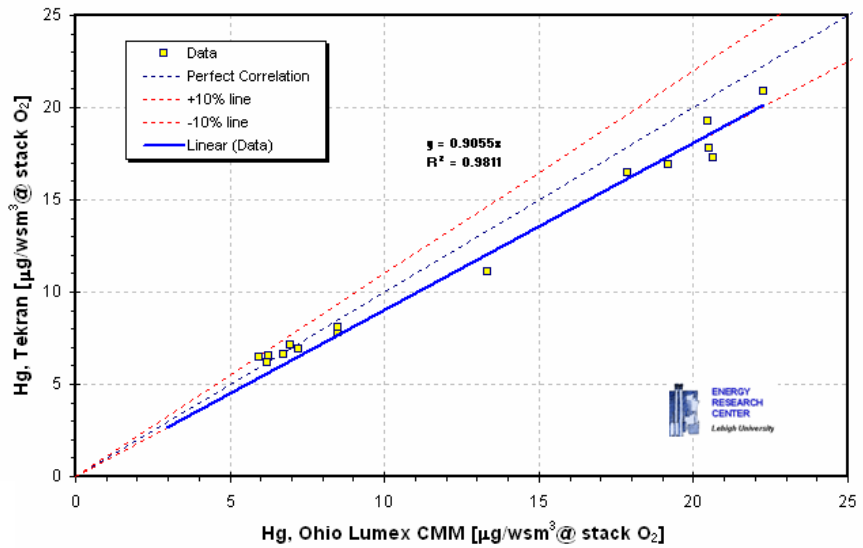
*results published in Power Magazine, 08/07

**Graphs Courtesy of Lehigh University, more graphs and study details are available on our web-site or upon request

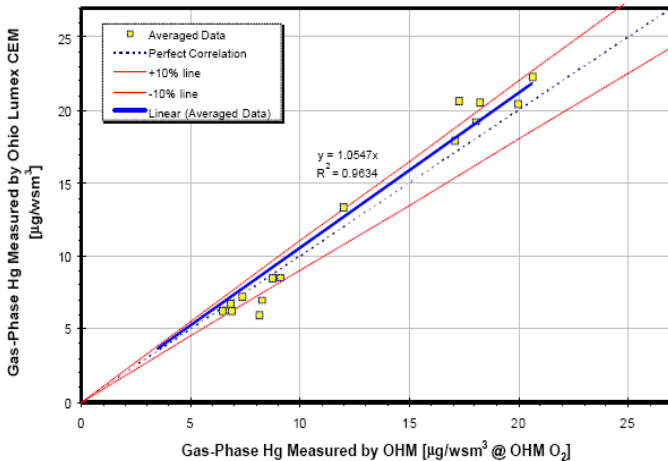
Armstrong Unit 2: Thermo Electron CMM vs. Ohio Lumex IRM915



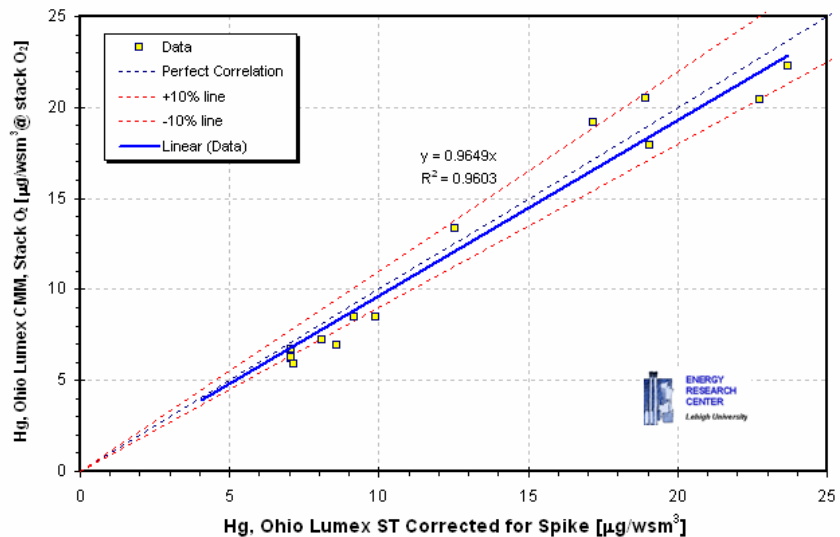
Armstrong Unit 2: Tekran CMM vs. Ohio Lumex IRM915



Armstrong Unit 2: Ohio Lumex CEM vs. OHM



Armstrong Unit 2: Ohio Lumex IRM915 vs. Ohio Lumex ST



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