

# Tekran 2600H Natural Gas Sampling and Analysis

Rev. 080326

Tekran® provides a suite of products for the measurement of natural gas and similar process gases. This system implements an enhanced version of ASTM Method D-6350 or ISO 6978-2.

The Tekran Model 2641 Mercury Grab Sampling System enables direct sample collection from high-pressure sources. This avoids all issues with Joule-Thompson cooling that arise with traditional pressure let-down samplers. The high-pressure sample gas passes directly through gold-coated quartz cartridges, capturing mercury. The remaining gas passes through the trap and is totalized after the pressure let-down step.

The cartridges are removed from the sampler for subsequent analysis. The 2600-NG analyzer is a rugged and compact atomic fluorescence system containing a cartridge heater, fixed analytical trap, and AF detector. The entire system is controlled by a PC through a single USB port. Calibration is done by vapor injections from a temperature-controlled calibration source.

## Tekran Quartz-Gold Sampling Trap

- Custom made quartz substrate for high surface area, low back pressure, and reproducibility
- Precisely controlled, optimized, high purity plasma deposition process
- Blank and batch testing to meet strict recovery and carryover criteria

## Model 2641 – Mercury Trap Sampling System

Unique system allows high-pressure sampling

- All pre-collection paths are SilcoNert coated to ensure complete transfer of mercury through the sampling system
- Complete system is pressure driven – no power is required for operation
- Minimalized dead volume for quick equilibrium

## Model 2505 - Calibration Unit

- Suitable for field or laboratory use
- Thermo electric temperature controller: no water bath required
- Operates from 12 VDC or line power
- Precision temperature measurement (Resolution: 0.001 °C)

## Applications

- Natural Gas (ASTM D-6350, ISO 6978-2)
- Process Gas Sampling

**Tekran Gold-Quartz Sampling Trap**



**Model 2641 Mercury Grab Sampling System**

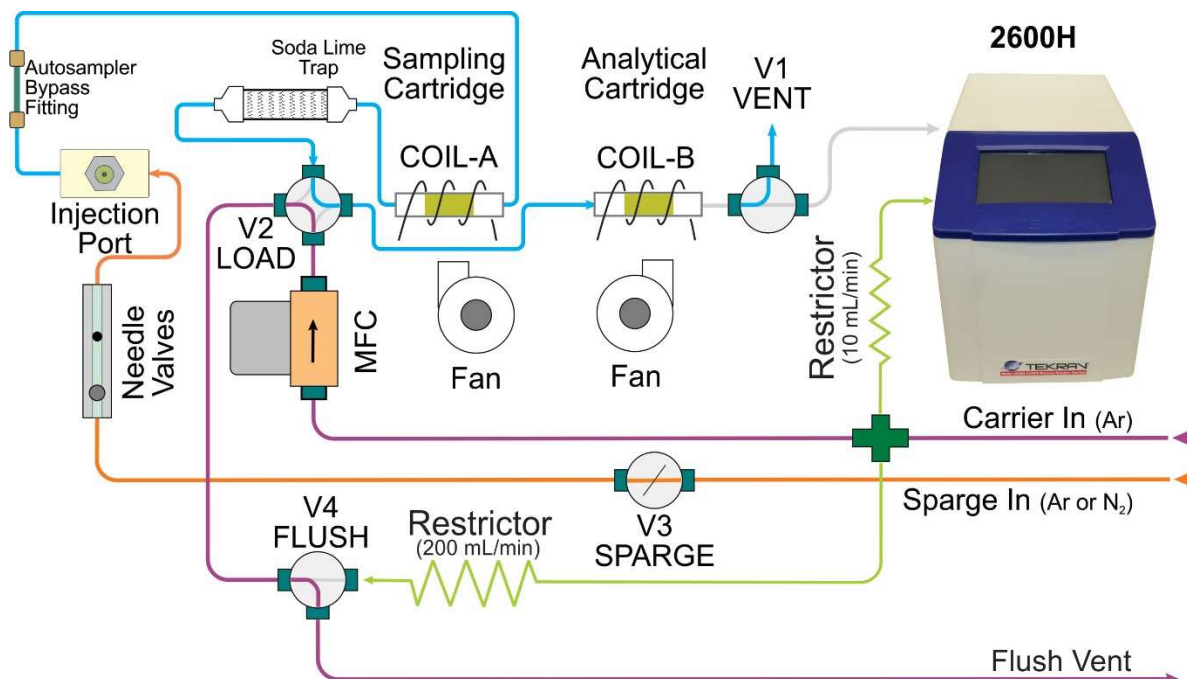


**Model 2505 Calibration Unit**



**Model 2600H AF Mercury Analyzer**

## Model 2600H-NG Analytical Flow Diagram



## Model 2600H-NG System Features

- Suitable for field or laboratory use
- Desorbs industry standard ¼" OD x 5" to 6" long friction fit cartridges eg: Tekran Gold-Quartz Cartridge
- Ultra-sensitive Atomic Fluorescence (AF) detector: Typical MDL < 1.0 ng/m<sup>3</sup>
- Dual-stage gold pre-concentrator and thermal desorber:
  - ◆ Continuously variable heaters allow ramped heating
  - ◆ High-velocity cooling fans provide faster cycle time
  - ◆ PEEK manifolds and valves reduce sample path contamination
- Built-in injection port manifold
- Precision mass flow controller for superior stability
- Auto carrier shutoff to conserve carrier gas
- 24-bit A/D converter provides wide dynamic range
- Automated desorption cycle
- Calibration using any saturated vapor injection source eg: Tekran Model 2505
- Controlled via all-new Tek-MLS software by any Windows PC.
  - ◆ The new application is faster, more reliable and offers a wide range of new capabilities including gas-specific reporting, audit trace logs, and control charting
  - ◆ Fully programmable desorption cycle parameters to tailor system for any special application
  - ◆ Notebook PC allows portable operation

*Due to continuing development, all specifications are subject to change.*