

Model 2641 Portable Mercury Sample System

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Tekran 2641
Portable Mercury
Sample System



Tekran Gold-Coated
Quartz Sampling Trap

Tekran and has worked with a leading industry partner to improve the quality of natural gas sampling and analysis. Proper sample collection requires precision equipment to assure mercury is quantitatively transported between the source pipeline and the sample collection device. The **Tekran Model 2641 Portable Mercury Sampler** paired with a **Tekran Model 2600-NG Mercury Analyzer** provides a complete sampling and analysis solution.

Accurately sampling mercury in natural gas matrices presents many challenges. First, mercury is typically present in natural gas in trace-level amounts (1 pptv) on the back end of mercury removal units. Second, gaseous mercury will adsorb to reactive surfaces, co-collected particles, and other sticky compounds in the sample path. The effects are amplified by stagnant and turbulent flow areas of the sample path. Third, the pressure letdown step can result in cold spots due to Joule-Thomson cooling, further increasing mercury losses during transport. The design of the Tekran 2641 eliminates all of the above challenges. All wetted parts are electropolished and silco-inert coated to virtually eliminate surface adsorption and wall losses, even at pptv mercury concentration levels. The grab sampler also incorporates a unique design to safely collect the mercury sample at line pressure, eliminating the need for a regulated pressure letdown system. The gold-coated quartz sampling traps are housed in a patented pressurized housing that equalizes pressure over all trap surfaces. Since pressure letdown occurs after sample collection, flow control is set using a simple needle valve. The unique flow path design avoids all mercury transport issues associated with Joule-Thompson cooling effects and wall losses to reactive surfaces. The result is a high performance sampling system that is simple to operate and is robust and reliable for operation in rugged environments.

Tekran 2641 Portable Mercury Sampler Features

- Designed to directly accommodate Tekran gold-coated quartz sampling cartridges
- Minimal dead volume allow lower flow rates and faster response times
- Sampler housed in wheeled transport case for easy transport
- All wetted components are electro polished and SilcoNert treated
- Easy access to all sampler components for easy sample collection and serviceability
- Additional pressurized housing may be purchased to further ease sample collection
- Sample collection is purely mechanically driven – no power required
- 3-way ball valve design allows easy purge of sample lines prior to sample collection
- Constant diameter flow path eliminates turbulent and stagnant areas

Tekran 2600-NG Analyzer
(used with Model 2641 NG Grab Sampler)



Gold Cartridge Analysis
Sample Flow Pathway

