

GC DETERMINING HYDROCARBONS IN LPG



GC determining Hydrocarbons in LPG TT-2163

GC determining Hydrocarbons in LPG TT-2163 is suitable for quality control in liquefied petroleum gas (LPG) production, as well as for commodity inspection of LPG import and export quality.

The analysis results of LPG quality examination comply with the ASTM D2163 and GB10410.3-89 standards. This GC determining Hydrocarbons in LPG TT-2163 enables the analysis of composition and detection limits of gaseous hydrocarbons below C5, excluding alkynes.

This GC determining Hydrocarbons in LPG TT-2163 quantitatively determines individual hydrocarbons in LP gases and mixtures of propane and propene, excluding high-purity propane, in the range of C1 to C5. Component concentrations are determined within the range of 0.01 to 100 volume percent.

However, this GC determining Hydrocarbons in LPG TT-2163 does not fully determine hydrocarbons heavier than C5 and non-hydrocarbon materials. Additional tests may be necessary to fully characterize an LPG sample. The GC is suitable for analyzing gaseous hydrocarbons under C5, excluding alkynes components such as air, methane (CH₄), ethane (C₂H₆), ethene (C₂H₄), propane (C₃H₈), propylene (C₃H₆), iso-butane (iC₄H₁₀), n-butane (nC₄H₁₀), n-butene (1-C₄H₈), isobutene (iC₄H₈), cis-butane (cC₄H₈), trans-butane (tC₄H₈), 1,3-butadiene, n-pentane (C₄H₁₀), iso-pentane (C₄H₁₀).

Concentration Range: 100 ppm to 50%

GAS analysis includes: nitrogen, ethane, propylene, propane, iso-butane, isobutene, butane, trans-butene, 2-Butene, isopentane, pentene, and pentane.

APPLICATIONS

The primary application of this Gas Chromatograph (GC) is for the quality control of Liquefied Petroleum Gas (LPG) during production and for the commodity inspection of LPG for import and export.

It is specifically used to:

- Quantitatively determine the individual hydrocarbon components in LPG and mixtures of propane and propene, in compliance with ASTM D2163.
- Analyze gaseous hydrocarbons in the C1 to C5 range, excluding alkynes.

The components it can analyze include:

- Nitrogen
- Methane
- Ethane and Ethene
- Propane and Propylene
- Iso-butane, n-butane, Isobutene, n-butene, cis-butene, trans-butene
- 1,3-butadiene
- Iso-pentane and n-pentane

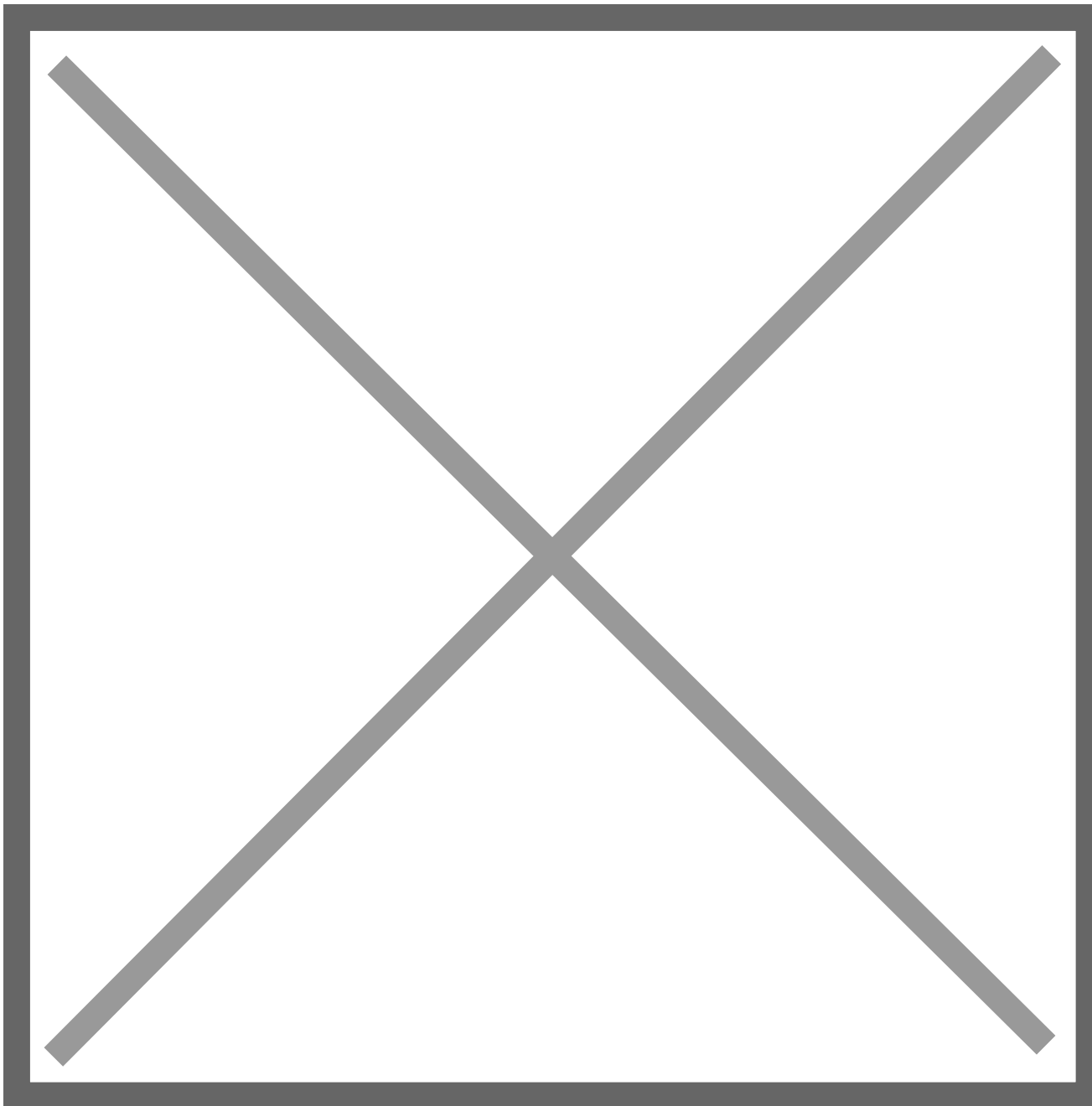
FEATURES

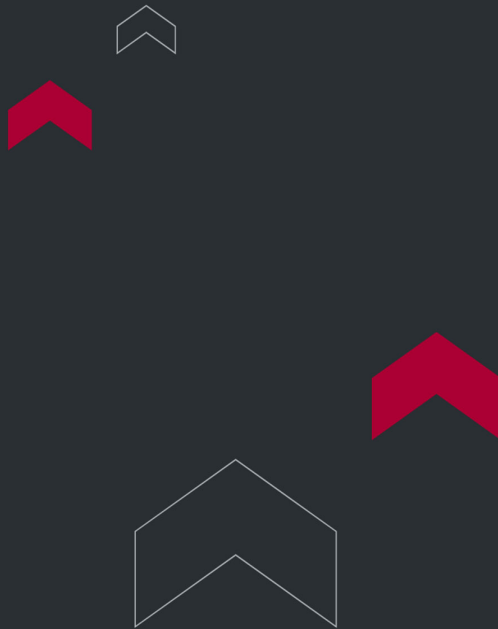
- Double detectors: FID and TCD.
- FID is utilized for testing: ethane, propylene, propane, iso-butane, isobutene, butane, trans-butene, 2-Butene, iso-pentane, pentene, and pentane.
- TCD is used for testing nitrogen.

- The GC is equipped with multiple steps temperature programming to facilitate optimum chromatographic separation conditions, shorten analysis time, and improve analysis efficiency. It also features a gas six-way valve for double chromatographic column separation, enabling full analysis of the above ingredients in one sample. The double six-way valve sample injection ensures non-interfering sampling simultaneously.
- Equipped with 4 liters of aluminum bottles of special standard mixture, providing convenience for quantitative analysis.
- Dual-channel chromatography workstation supports XP operating system for chromatographic spectrogram storage, data processing, and report printing as desired. Equipment warranty is one year (excluding man-made damage and loss), with lifelong maintenance.

THEORY & METHOD

Chromatogram





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