

LPG / LNG / NATURAL GAS TESTING EQUIPMENT



LPG / LNG / Natural Gas Testing Equipment

Liquefied Petroleum Gas (LPG) — primarily composed of propane, butane, and their mixtures — is one of the most widely traded energy commodities in the world, used for domestic heating and cooking, industrial fuel, automotive propulsion, and petrochemical feedstock. Because LPG is stored and transported under pressure as a liquid, even small deviations from specification can lead to serious safety incidents: excessive vapor pressure can rupture cylinders, corrosive sulfur compounds can damage valves and regulators, and residual contaminants can clog burner nozzles or catalytic converters.

Torontech's LPG Testing Equipment portfolio covers every critical quality parameter — from vapor pressure, density, and hydrocarbon composition to water content, sulfur compounds, hydrogen sulfide, copper corrosion, and residues — using instruments specifically designed or validated for liquefied gas sample handling. Each instrument complies with the primary ASTM, IP, ISO, and EN standards applicable to LPG quality certification and trade.

APPLICATIONS

LPG / LNG / Natural Gas Testing Equipment Applications

LPG testing is required at every stage of the production, distribution, and end-use chain:

- LPG refinery and fractionation plants: Real-time quality monitoring of propane, butane, and mixed LPG streams for on-spec product release.
- LPG terminals and bulk storage: Acceptance testing of incoming LPG shipments against purchase specifications before unloading.

- Cylinder filling and bottling plants: Batch quality verification prior to filling domestic and industrial cylinders — vapor pressure and H₂S analysis are mandatory safety checks.
- Autogas (LPG vehicle fuel) distribution: Compliance testing with EN 589 (Europe) and equivalent national autogas specifications covering vapor pressure, sulfur content, and composition.
- Petrochemical feedstock quality: LPG used as feedstock for steam crackers and alkylation units must meet strict hydrocarbon composition and impurity limits verified by GC analysis.
- Natural gas processing plants: Dew point and composition analysis of LPG recovered from natural gas processing ensures product meets pipeline and commercial specifications.
- Third-party inspection and certification: Independent surveyors performing cargo inspection and quality certification of LPG tankers, rail cars, and cylinders.
- Research and development: Fuel formulation studies, additive evaluation, and combustion research requiring fully characterized LPG of known composition and purity.

FEATURES

Why Choose Torontech LPG / LNG / Natural Gas Testing Equipment Series for Your Operations?

- Complete parameter coverage: A single supplier for all LPG quality parameters — vapor pressure, density, water content, sulfur, H₂S, hydrocarbon composition, copper corrosion, dew point, and residues — simplifying procurement, calibration, and technical support.
- Pressurized sample compatibility: Torontech LPG instruments are engineered for the unique challenges of pressurized liquid gas samples — sealed test chambers, pressure-rated connections, and corrosion-resistant wetted materials prevent sample loss and ensure operator safety.
- Full standards compliance: ASTM D1267, D1657, D1838, D2158, D2163, D2420, D5453, D6304 and equivalent IP/ISO/EN standards are built into instrument protocols, ensuring results are accepted by all major trading counterparties and regulatory authorities.

- From manual to fully automated: Whether you need a simple manual vapor pressure apparatus for a small bottling plant or a fully automated GC system for a high-throughput refinery laboratory, Torontech offers the right level of automation for your application.
- Vaporizer accessory integration: The TT-6304V Vaporizer enables accurate Karl Fischer water analysis of LPG and other pressurized gaseous samples — solving the sampling challenge that compromises many competitor solutions.
- Safety-rated design: All LPG testing instruments are designed with appropriate pressure ratings, gas-tight connections, and ventilation considerations for flammable gas laboratory environments.
- Application expertise: Torontech's application engineers have deep experience in LPG laboratory setup, method validation, and instrument qualification — supporting your accreditation to ISO/IEC 17025 or ILAC requirements.
- Global support network: Calibration services, spare parts, and technical support are available worldwide, minimizing downtime and keeping your LPG testing program on schedule.

TECHNICAL SPECIFICATIONS

How to Choose — LPG / LNG / Natural Gas Testing EquipmentComparison

Use the table below to identify which instrument matches your target quality parameter and applicable test standard:

Product	Test Method	Parameter Tested	Automation	Suitable For
Coulometric Karl-Fischer Titration Tester TT-6304	ASTM D6304 / ASTM E1064	Water Content	Auto	LPG, NGL
Vaporizer TT-6304V	Accessory	Sample Vaporization	—	LPG, Propane
LPG Pressure Hydrometer Cylinder TT-1657	ASTM D1657 / IP 235	Density/Relative Density	Manual	LPG, Propane, Butane
Pressure Hydrometer Cylinder Bath TT-1657A	ASTM D1657	Density (Temperature Ctrl)	Semi	LPG
Vapor Pressure for Liquefied Petroleum Gases TT-1267	ASTM D1267 / IP 161	Vapor Pressure	Manual	LPG, Propane, Butane
LPG Copper Strip Corrosion TT-1838	ASTM D1838 / IP 154	Corrosiveness to Copper	Manual	LPG, Propane

Product	Test Method	Parameter Tested	Automation	Suitable For
Ultraviolet Fluorescence Sulfur Tester TT-5453	ASTM D5453 / ISO 20846	Total Sulfur Content	Auto	LPG, Gasoline, Naphtha
Volatility and Residues in LP Gases TT-2158	ASTM D2158	Residues & Volatility	Manual	LPG, Propane, Butane
LPG Hydrogen Sulfide Analyzer TT-2420	ASTM D2420	H ₂ S Content	Manual	LPG, Propane
GC for Analysis of Natural Gas TT-1945	ASTM D1945 / ISO 6974	Hydrocarbon Composition	Auto	Natural Gas, LPG
GC Determining Hydrocarbons in LPG TT-2163	ASTM D2163 / ISO 7941	Hydrocarbon Composition	Auto	LPG, Propane, Butane
Dew Point for Gaseous Fuels TT-1142	ASTM D1142	Moisture Dew Point	Auto	Natural Gas, LPG



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