



RECOMMENDED GAS GENERATORS FOR ANALYTICAL INSTRUMENTS

Easy-to-use, safe and cost-effective solutions that provide laboratory grade gas with consistent pressure and purity.



GAS GENERATOR APPLICATIONS

Products for Ultra-Dry Air

- Gas generators for dilution and calibration of emissions analyzers
- Exceed instrument manufacturer specifications.
- Nitrogen and specialty blend gases available.

Products for Spectroscopy

- Remove water and CO₂ from compressed air
- Protect expensive optics from damage from water vapor.
- Increase signal to noise ratio and maximize instrument sensitivity.
- Ultra-dry air for NMR injecting, spinning, and ejecting samples

Products for TOC Analysis

- Generate gases for all combustion, UV persulfate, and wet oxidation techniques.
- Ensures consistent, reliable, instrument operation and reduces instrument service and maintenance costs.

Products for Chromatography

- Hydrogen, Zero Air, and UHP Nitrogen Generators for gas chromatography
- Combination systems available to provide multiple gases from one unit.
- Highest purities available from any supplier.

Analytical Gas Supplies

- Installation kits, compressors, purifiers, flow-meters, regulators, and all the materials needed to equip your lab.
- High-quality components, designed specifically for use with Parker gas generators, to deliver high-purity gas to your instruments.

Recommended Gas Generators for Analytical Instruments

Instrument	Gas Requirements	Gas Purity Requirements	Flow Rates	Generator Recommendation/Model
Atomic Absorption (AA) with Flame	Air for Oxidant Gas	Clean, dry	1-7 SCFM	AA Gas Purifier Model 73-100
Atomic Thermal Desorber	Zero Air Hydrogen for FID Fuel	Clean, dry, hydrocarbon-free Clean, dry, high purity	Up to 1600 ml/min	Zero Air or TOC Gas Generator HPZA-3500 or TOC-1250
Atmospheric Pressure Ionization (API-MS)	Air for nebulizer gas, nitrogen for curtain, sheath, and shield gas	Clean, dry, hydrocarbon-free 99% or higher (Nitrogen or Zero Air)	20-67 SLPM	Nitrogen or Zero Air Generator N2-14, N2-22, N2-35, N2-45, N2-80, N2-135, N2-200, NitroFlow Lab, NitroFlow 60, 76-98-N100, 76-98-N200, 76080
Autosamplers for Various Instruments	Air for pneumatic controls, nitrogen for sample injector	Clean, dry Ultra high purity	<1 SCFM <550 cc/min	Membrane Air Dryer 64-02 UHP Nitrogen Generator UHPN2-1100
CO ₂ Analyzers	Calibration Air	CO ₂ free	0.5-1.0 SLPM	FT-IR Purge Gas Generator Spectra15, Spectra30
Continuous Emissions Monitoring (CEM)	Calibration Air Dilution Air	Dry, CO ₂ , SO ₂ , NO _x , Hydrocarbon-free	10-15 SLPM	CEM Zero Air Generator 75-45-M744
Emissions Analyzers	Zero Air	Hydrocarbon-free	2-15 SLPM	Zero Air Generator HPZA-18000
Fourier Transform Infrared Spectrometer (FT-IR)	Air for sample compartment, optics, and/or air-bearing	Clean, dry, CO ₂ -free	0.5-3 SCFM	FT-IR Purge Gas Generator Spectra15, Spectra30 Lab Gas Generator 74-5041NA
Gas Chromatograph (GC) GC-FID	Zero air as flame support air Hydrogen as flame fuel gas Nitrogen as packed carrier gas Nitrogen as make up gas	Clean, hydrocarbon-free Ultra high purity Ultra high purity, zero grade Ultra high purity, zero grade	150-600 cc/min 30-40 cc/min Varies <100 cc/min	Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 UHP Nitrogen Generator UHPN2-1100 UHP Nitrogen Generator UHPN2-1100
GC-FPD	Zero Air as Flame Support Air Hydrogen as Flame Fuel Gas Hydrogen as Capillary Carrier Gas Nitrogen as Packed Carrier Gas	Clean, hydrocarbon-free Ultra high purity Ultra high purity Ultra high purity	<200 cc/min 50-70 cc/min Varies Varies	Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 Hydrogen Generator H2PEMPD-1300 UHP Nitrogen Generator UHPN2-1100
GC-NPD	Zero Air to Rubidium/Thermonic Bead Hydrogen as Detector Support Gas Hydrogen as Capillary Carrier Gas Nitrogen as Packed Carrier Gas	Dry, clean, hydrocarbon-free Ultra high purity Ultra high purity Ultra high purity	<200 cc/min <10 cc/min Varies Varies	Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-100 Hydrogen Generator H2PEMPD-510 UHP Nitrogen Generator UHPN2-1100
GC-ECD	Nitrogen as carrier gas Nitrogen as make up gas	Ultra high purity, zero grade Ultra high purity, zero grade	Varies <100 cc/min	UHP Nitrogen Generator UHPN2-1100 UHP Nitrogen Generator UHPN2-1100
GC-TCD	Hydrogen as carrier & reference gas	Ultra high purity	Varies	Hydrogen Generator H2PEMPD-510
LC-MS	Nitrogen as a curtain gas	LC-MS Grade	3-30 SLPM	Nitrogen Generator ALIGN-MG, ALIGN-HFMG, NitroFlow Lab, NitroFlow 60, N2-14
ICP Spectrometer	Nitrogen as Optic/Camera Purge	Ultra high Purity	<1-5 SLPM	Nitrogen generator 76-98NA
Nuclear Magnetic Resonance (NMR)	Air for lifting, spinning	Clean, dry	<10 SCFM	Air dryer UDA-300NA Lab gas generator 74-5041NA
Ozone generator	Supply air	Clean, dry	.3-20 SCFM	Air dryer 64-01, 64-02, 64-10, UDA-300NA
Protein analyzer	Dry air, nitrogen	Clean, dry	Up to 5 SCFM	Nitrogen generator N2-14, N2-22, NitroFlowLab, N2-35
Solvent evaporators (sample concentrators)	Nitrogen	Clean, dry nitrogen	2-15 SLPM	Zero Air Generator Nitrovap-1LV, Nitrovap-2LV
Stack gas sampler	Dilution air	Clean, dry	<1.0 SCFM	CEM zero air generator (75-45-M744)
Total oxygen demand (TOD)	Nitrogen as a carrier gas	Ultra high purity	300 cc/min	Nitrogen Generator UHPN2-1100
Thermal gravimetric analyzer (TGA)	Nitrogen as furnace purge	Clean, dry, inert	<100 cc/min	Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 Hydrogen Generator H2PEMPD-1300-100 UHP Nitrogen Generator UHPN2-1100
Differential scanning calorimeter (DSC)	Air for air shield	Clean, dry	<100 cc/min	Dry Air Generator 64-01, UDA-300
Total hydration analyzer (THA)	Zero Air for FID Hydrogen as flame fuel gas	Clear, hydrocarbon free Ultra high purity	50-500 cc/min 5-50 cc/min	Zero Air Generator 75-82S, 75-83NA Hydrogen Generator H2PEM-100
Total organic carbon analyzer (TOC)	Dry air or nitrogen for carrier gas Combustion gas	Clean, dry, hydrocarbon-free, CO ₂ Free, Ultra high purity	100-500 SLPM 50-700 cc/min	TOC Gas Generator TOC-625, TOC-1250 UHP Nitrogen Generator UHPN2-1100



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