



Generators Selection Guide

Application	Gas used	Purity	Typical flowrate	Generator model
Generators for Gas Chromatography				
GC-FID	H2 for fuel gas	H2 high purity	40 to 50 ml/min	H2 PG Plus
	Zero Air for flame gas	Without hydrocarbon	300 to 500 ml/min	Ultra Zero Air Station
	H2 for capillary carrier gas	H2 high purity	10 ml/min	H2 NM Plus
	N2 for packed carrier gas	N2 high purity ; N2 Zero	20 to 50 ml/min	N2 High Purity¹
GC-FPD	N2 for make up gas	N2 high purity ; N2 Zero	50 to 100 ml/min	N2 High Purity¹
	H2 for fuel gas	H2 high purity	60 to 90 ml/min	H2 PG Plus
	N2 for make up gas	N2 high purity ; N2 Zero	100 to 200 ml/min	N2 High Purity
GC-NPD	Zero Air for flame gas	Without hydrocarbon	90 to 120 ml/min	Ultra Zero Air Station
	H2 for carrier gas	H2 high purity	> 50 ml/min	H2 NM Plus
GC-ECD	N2 for make up gas	N2 high purity ; N2 Zero	> 30 ml/min	N2 High Purity
	N2 for carrier gas	N2 high purity ; N2 Zero	100 ml/min	N2 High Purity
GC-TCD	N2 for make up gas	N2 high purity ; N2 Zero	60 ml/min	N2 High Purity
GC-ATD	H2 for carrier gas	H2 high purity	100 ml/min	H2 NM Plus
GC-AED	Dry Air purge	-70°C dry, clean Air	< 2 L/mn	Zero Air GC
GC-ELCD	N2 for carrier gas	N2 high purity ; N2 Zero	< 1 L/mn	N2 High Purity
	H2 as reaction gas	H2 high purity	70 to 200 cc/mn	H2 NM Plus
Generators for LCMS Devices				
Waters, APCI, ESI Applied Biosystem	Air and N2 for nebulisation	N2 / Dry Air	Up to 20 L/mn for Air and 5 L/mn for N2	N2+Air for AB Sciex
LCMS / MS, TOF	N2 for curtain gas	98.5 %, HC free	5 to 35 L/mn	N2 Mistral EVO
Generators for Spectroscopy				
FT-IR	Purge gas to remove interferences	Dry Air without CO ₂	15 to 80 L/mn	Ultra Zero Air Station²
ICP	N2 for purge gas	> 99,995 %	up to 9 L/mn	N2 High Purity
AA	Air for oxidant gas	Dry Air	up to 30 L/mn	Zero Air GC
MP-AES Agilent 4100MP	N2	N2 at 99.5%	up to 25 l/min N2	N2+Air Station 4100 MP
	Air	Air < -35°C DP	up to 35 l/min Air	
Generators for Analyzers				
TOC	CO2 free Air or N2 dry for carrier	<0.1 ppm CO ₂	100 to 500 ml/min	Ultra Zero Air Station²
	Ultra Zero Air for combustion gas	N2 high purity	50 to 700 ml/min	N2 High Purity
TOD	N2 as carrier gas	N2	300 ml/min	N2 High Purity
CO ₂ Analyser	Calibration Air	Dry Air without CO ₂ , without hydrocarbon	500 to 1000 ml/min	Ultra Zero Air Station²
DSC	Air for air shield	Dry Air	100 ml/min	Zero Air GC
TGA	N2 or Dry Air as furnace gas	N2 high purity	100 ml/min	N2 High Purity
Generators for Laboratory Applications				
Sample prep	N2 for solvent evaporation	95 % à 99 %	130 L/mn	N2 Whisper
	Air for pneumatic control	Dry Air	25 L/mn	Zero Air GC
	N2 for auto-sampler	N2 high purity, N2 Zero	550 cc/mn	N2 High Purity
Circular Dichroism	N2	N2 high purity	2 to 10 L/mn	N2 High Purity
ELSD Detector	N2 for nebulisation	Dry Air or N2	2 to 5 L/mn	N2 High Purity
Particle sizing by laser diffraction	Clean and dry air for dispersion gas	Dry Air	-	Zero Air GC
Generators for 19" rack				
GC-FID	Zero Air for combustion	Zero air without hydrocarbon, CO	5/10/30 NI/min	Zero Air Sx 3057
O3 gen, NOx analysers	Zero Air for all gas analysers			
Gas analyzers Calibrators, dilutors	Zero Air Carrier gas			
Gas analyzers cal	Several gases	SO ₂ ,NO ₂ ,NH ₃ ,HCl,BTX,H ₂ S,HCnm	1 to 5 l/min	Sx 3014
O3 analyzers cal	Ozone standard for calibration	Air for dilution	2500 ml/min	Ozone Sx 4001
PID	N2 for purge gas	10 to 1000 ppb indry/wet air	200 ml/min	HP N2 Sx 3060
GC FID	Combustion Air for FID	N2 without HC	250 ml/min H2	H2+Air Sx 3080
	N2 for FID,BTEX,VOC and GCs	H2 high purity	5 l/min Air	

AA Atomic Absorption spectroscopy
 AED Atomic Emission Detector
 ATD Automated Thermal Desorption
 DSC Differential scanning calorimetry
 ECD Electron capture detector
 ELSD Evaporative Light Scattering Detector
 FDP Flame Photometric Detector
 FID Flame Ionization Detector
 ICP Inductively Coupled Plasma

LCMS Liquid chromatography-mass spectrometry
 MP-AES Microwave Plasma Atomic Emission Spectrometer
 NMR Nuclear magnetic resonance
 NPD Nitrogen-phosphorus detector
 TCD Thermal Conductivity Detector
 TGA Thermal Gravimetric Analysis
 TOC Total Organic Carbon
 TOD Total Oxygen Demand

*1 = additional oven to remove HC's
 *2 = GT without compressor

