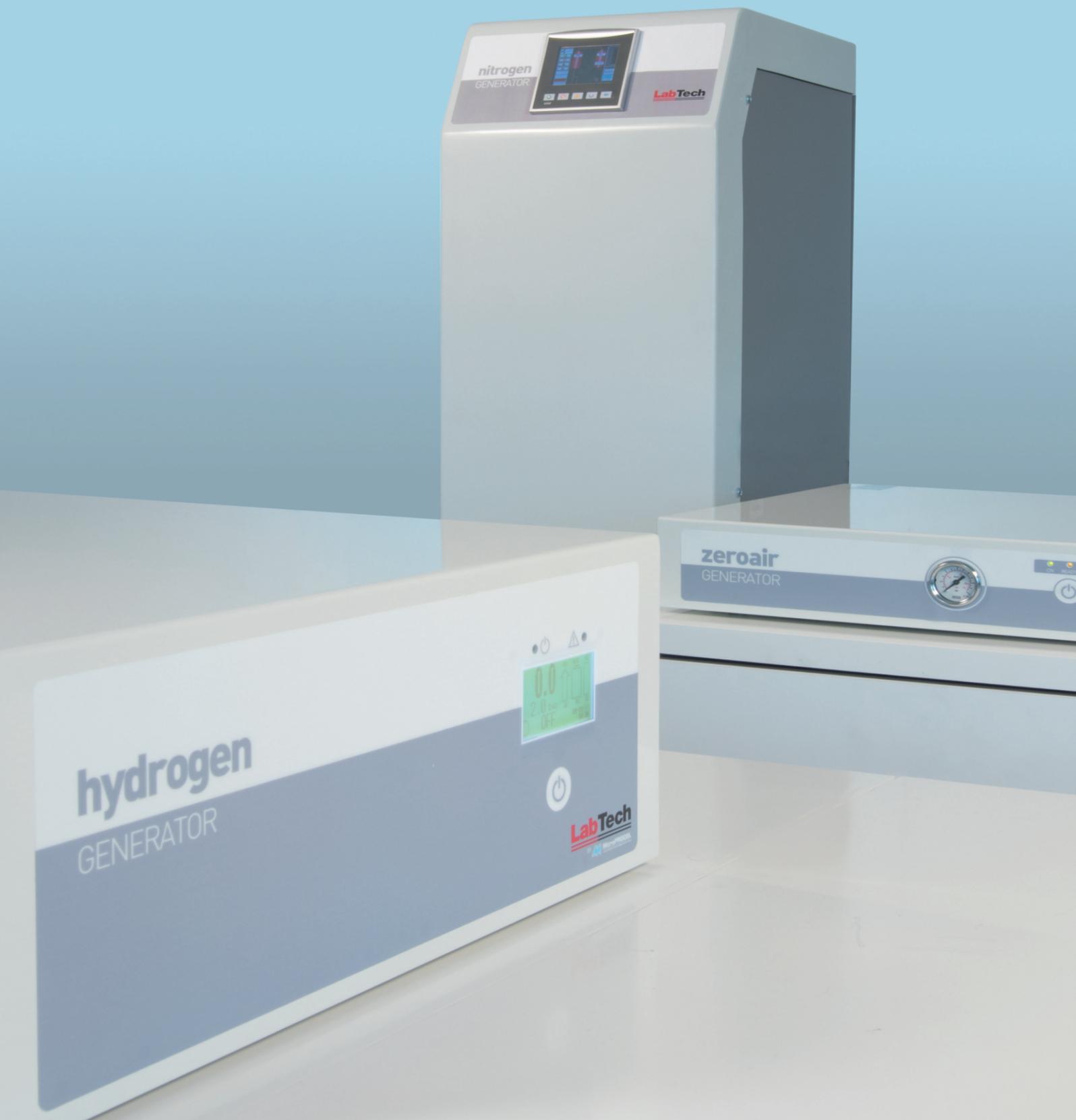


# GAS GENERATION SOLUTIONS



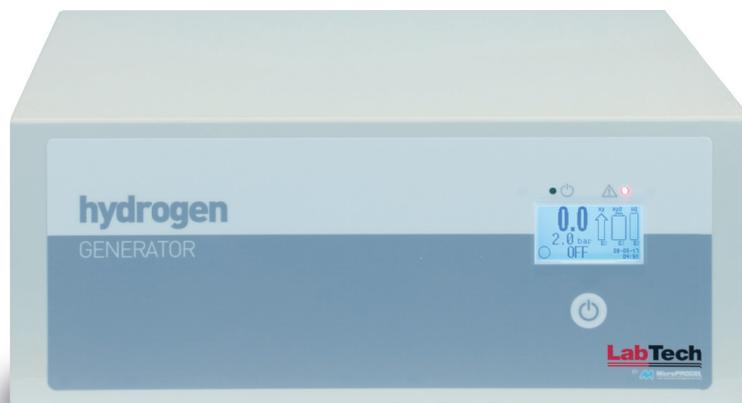
**LabTech**

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## LMH & LMHPLUS Series, simply the best!

The LMH & LMHPLUS series use an electrolytic cell with a polymeric membrane (PEM) to produce pure hydrogen gas. The innovative gas-drying system of the LMHPLUS series is completely maintenance-free and can run operations 24 hours a day. The exclusive electronically controlled gas/liquid separator automatically checks for internal leaks when the unit starts. Furthermore, the constant control of the operating parameters guarantees maximum safety and the LCD touchscreen interface provides a simple and user-friendly management of all of the unit's functions without requiring the operator's presence.

- » Innovative Maintenance-Free Drying System for 24h/day operations
- » Built-in Water Tank with Electronic Level Control and "Auto-Refill" function
- » Gas Flow Rates up to 1000 cc/min
- » Outlet Pressure up to 16 bar
- » Hydrogen Purity up to >99.99999%
- » Possibility of Unit Customization
- » User Friendly Touch Screen Display
- » Compact Dimensions
- » Cascading Facility
- » Hydrogen Sensor (optional)



## MAIN APPLICATIONS

- Carrier gas for GC and GS-MS
- ICP-MS collision gas
- Production of H<sub>2</sub>O<sub>2</sub>
- Flame ionization detector (FID) for feed gas
- Refilling of metal hydride tanks for the application of fuel cells
- Electronics

# TECHNICAL SPECIFICATIONS

	LMH180	LMH350	LMH520	LMH180PLUS	LMH350PLUS	LMH520PLUS	LMH700PLUS	LMH1000PLUS
<b>▪ GENERAL DATA</b>								
Electrolytic cell	PEM technology							
H <sub>2</sub> purity	>99.9995% <sup>1</sup>			>99.99999% <sup>2</sup>				
Outlet pressure (bar)	8 (115psi)			12 (174psi) - Optional 16 (232psi)				
Max flow rate (cc/min)	180	350	520	180	350	520	700	1000
Dimensions (LxWxH cm)	56x45x19							
Net weight (Kg) (water tank empty)	20		22	20		22		25
<b>▪ COMMUNICATION</b>								
RS232	•	•	•	•	•	•	•	•
RS485	-	-	-	•	•	•	•	•
USB	-	-	-	•	•	•	•	•
<b>▪ SOFTWARE FUNCTIONS</b>								
Parallel mode capability	•	•	•	•	•	•	•	•
Auto refill tank function	•	•	•	•	•	•	•	•
<b>▪ WATER</b>								
Quality	Deionized, ASTM II, <0.1µS							
Internal tank capacity (L)	1.1							
External tank capacity (L)	5 or 10							
<b>▪ ELECTRICAL REQUIREMENTS</b>								
Power supply voltage	100-240V 50/60Hz							
Max power consumption (W)	280	450		280		450	560	
Fuse rating (A)	4	6.3		4		6.3		
<b>▪ CONNECTIONS</b>								
Hydrogen outlet	1/8" Compression Fitting							
Water	Quick release push-in fitting							
<b>▪ OPERATING CONDITIONS</b>								
Temperature (°C)	5 to 35 (41° to 95°F)							
Humidity (°C) (Max, non condensing)	80% at 25 (77°F)							
Noise (dB)	<25							
IP rating	20							

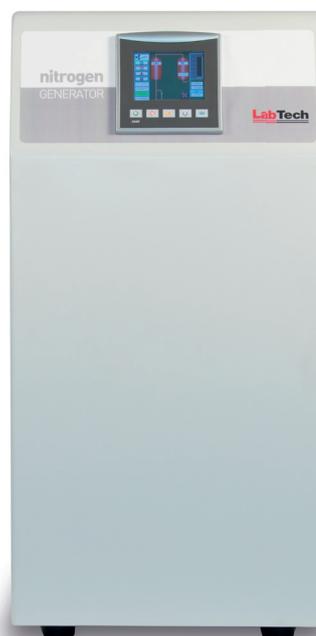
<sup>1</sup>Referred to O<sub>2</sub>, DewPoint < -50°C - <sup>2</sup>Referred to O<sub>2</sub>, DewPoint < -75°C

# NITROGEN GENERATORS

## LN Series... innovation inspired.

LabTech develops innovative gas generators that can be used whenever high-quality nitrogen gas and rapid flow changes are required. The LN series meets the “Green Lab Conditions” regulations by using eco-friendly materials. By adapting new technologies and innovations in order to maintain a high reliability level, all of the production steps are focused to offer high-quality and customized solutions to meet any requirements. The LN series is designed especially for analytical, medical and industrial use, providing an accurate control of the supply of nitrogen gas.

- » **Complete Range of Gas Flow-Rates**
- » **Built-in Low Noise Air Compressor**
- » **Compact Dimensions**
- » **Nitrogen Purity 99.9995%**
- » **Auto-Run Function**
- » **Energy Saving Mode**
- » **Outlet Flow Indicator**
- » **Trend Graphs**
- » **Service Alarms**
- » **Remote Access to Screen**
- » **Unique Touch Screen Interface**
- » **Oxygen Sensor (optional)**



The LN range by LabTech is the reliable and efficient alternative to conventional high-pressure cylinders. Considering the running costs, safety issues and the risk of running out of gas during operations, the LN series is the most advanced and reliable gas generating solution available. The control system gives all the information necessary to ensure an efficient and consistent gas supply. From process and flow alarms, to the automated start/stop function, to trend graphs, to the service record page, there is simply no other laboratory nitrogen system like the LabTech LN series.

## MAIN APPLICATIONS

- GC
- General laboratory
- ICP
- Evaporative light-scattering detection (ELSD)
- LC/MS
- Automated Nitrogen Concentrator

# TECHNICAL SPECIFICATIONS

	LN1	LN3	LN4	LN12	LN25	LN40	LN64	LN150
<b>▪ GENERAL DATA</b>								
Nitrogen separation technique	PSA technology							
Maximum nitrogen purity (%)	>99,9995	>99,9000	>99,9995	>99,9000	>98,0000	>96,0000		
Outlet pressure	Inlet pressure – 1bar							
Maximum N flow rate (L/min)	1	3	4	12	25	40	64	150
Maximum air inlet pressure (bar)	8 (116psi)							
Dimensions (LxWxH cm)	60x40x75		90x45x82					
Net weight (Kg) (water tank empty)	49	57	63	68	90	110		
<b>▪ COMMUNICATION</b>								
LAN	•	•	•	•	•	•	•	•
Remote via web	•	•	•	•	•	•	•	•
<b>▪ AIR INLET REQUIREMENTS</b>								
Dew-point (°C)	-40							
Particulate (µm)	<0.01							
Oil (mg/m <sup>3</sup> )	<0.01							
<b>▪ ELECTRICAL REQUIREMENTS</b>								
Power supply connection type	IEC type C14 (fused)							
Power supply voltage	115-230V 50/60Hz							
Fuse rating (A)	5	5	5	5	6,3	10	10	10
<b>▪ CONNECTIONS</b>								
Nitrogen outlet	1/4" BSPP (Optional 1/8" Compression Fitting)							
<b>▪ OPERATING CONDITIONS</b>								
Temperature (°C)	5 to 35 (41° to 95°F)							
Humidity (°C) (Max, non condensing)	80% at 25 (77°F)							
Noise (dB)	<25							
IP rating	20							

## LZA Series, the right partner in air purification.

The LZA series is one of the smallest and most efficient hydrocarbon-free air purifier systems for laboratory use. It utilizes the reliable and efficient heated catalyst technology to reduce the emission of THC and methane to less than 0.05 ppm. The LZA series increases the efficiency of any laboratory by removing the high-pressure gas cylinders. Zero air is used in many commercial and laboratory applications to improve the quality of a product or process, like the source of fuel air for Flame Ionization Detectors (FID) or a zero reference for any instrument that measures hydrocarbon concentration. The LZA generators allow the production of in-house purified air in a simple and inexpensive way.

- » Flow-Rates up to 6000 cc/min
- » Outlet Pressure up to 6,5 bar
- » Total Hydrocarbon Content < 0,05 ppm
- » Compact Dimensions
- » Plug & Play Solution



## MAIN APPLICATIONS

- THA
- Flame ionization detector (FID) for feed gas
- Flame photometric detector (FPD)
- Pulsed flame photometric detector (PFPD)
- NPD

# TECHNICAL SPECIFICATIONS

	LZA1000	LZA2000	LZA3000	LZA6000
<b>▪ GENERAL DATA</b>				
Max flow rate (cc/min)	1000	2000	3000	6000
Min outlet pressure (bar)	Inlet Pressure – 0.5 (8psi) at maximum flow			
Max outlet pressure (bar)	6.5 (94psi)			
Total hydrocarbon content (ppm)	< 0.05			
Dimensions (LxWxH cm)	51x44.5x10			
Net weight (Kg)	12		13	
<b>▪ AIR INLET REQUIREMENTS</b>				
Max Inlet hydrocarbon content	50ppm			
Supply pressure (bar)	3 to 10 (43psi to 145psi)			
Dew-point (°C)	< -20			
Temperature (°C)	1 to 35 (34° to 95°F)			
<b>▪ ELECTRICAL REQUIREMENTS</b>				
Power supply voltage	90-240V 50/60Hz			
Connection type	IEC320-C13			
Max consumption power (W)	240 (280V)			
Fuse rating (A)	4			
<b>▪ CONNECTIONS</b>				
Outlet port	1/8" female			
Inlet port	1/8" female			
Water purge	ISO M5 female pipe thread			
<b>▪ OPERATING CONDITIONS</b>				
Temperature (°C)	5° to 35 (41° to 95°F)			
Humidity (°C) (Max, non condensing)	80% at 25 (77°F)			
IP rating	20			

# LabTech

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## **LabTech, your reliable laboratory solution provider.**

LabTech is a leading manufacturing company with skill and passion devoted to provide advanced laboratory solutions to the analytical community. We are located in Sorisole, northern Italy, with facilities in USA and China. Incorporated with global branches, LabTech is organized into R&D, production, marketing & sales and customer support. Major LabTech products include organic/inorganic sample preparation systems, laboratory cooling/heating/temperature control equipments, analytical instruments, gas generators, laboratory centrifuges and liquid nitrogen generators. With knowledgeable scientists and experienced engineers, our R&D team has developed and released a series of new lab equipments and instruments dedicated to the modern analytical laboratories. With all of these accomplishments and our endless research and development efforts, we are proud to be your professional partner.



LabTech Srl

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