LAB GAS GENERATORS

Product catalogue

DRIVING INNOVATION WITH RELIABLE GAS GENERATORS

TECHNOLOGY
MADE IN ITALY

HYDROGEN GENERATORS

H_2

Imagine a world where purity is paramount. MARS hydrogen generators, harnessing cutting-edge Proton Exchange Membrane (PEM) technology, deliver ultra-pure hydrogen at precise pressures, completely eliminating the need for external purification systems or water tanks.

Achieving an extraordinary purity level of over 99.99999%, MARS generators revolutionize applications with gas chromatographs, providing unrivaled consistency for flame ionization detectors (FID), reaction gas for all detectors, makeup gas, and carrier gas, ensuring impeccable repeatability of retention times.

Their sleek and adaptable design fits seamlessly into any setting, maximizing space without compromise. The “D” version of MARS hydrogen generators boasts a self-regenerating TSA dryer, eliminating maintenance concerns.

Safety is not just a feature; it’s a mission. MARS generators incorporate auto-shutdown functionality, maintaining minimal hydrogen storage to adhere to the highest safety standards.

MAIN FEATURES

- Eliminate dangerous hydrogen cylinders from the laboratory
- Plug-and-Play solution
- Compact, reliable with minimal maintenance
- Up to 99.99999% H_2 constant and real purity
- Up to 15bar (217psi) H_2 pressure
- Networking capability
- Designed to run 24/7

MAIN APPLICATIONS		
GC	GC-MS	ICP-MS

TECHNICAL SPECIFICATIONS

MARS	150 N	250 N	400 N	600 N	800 N	1000 N	1200 N
H2 Flow (cc/min)	150	250	400	600	800	1000	1200
H2 Purity (%)*	99,9995						
H2 Production technique	PEM						
Dew point	-20°						
Max. Outlet H2 pressure (bar/psi)	10 / 145 (15 / 217 optional)						
Water quality	Deionized, ASTM II, <0.1µS						
Internal tank capacity (L)	5						
Display	3,5" Colour touch screen						
Communication port	Ethernet						
Dimensions L x W x H (mm)	250 x 460 x 500						
Power Supply	230 or 110V ± 10% - 50/60Hz						
Max. power consumption (W)	110	140	190	265	315	340	410
Net Weight (kg)	17	17	17	22	22	25	25
Noise level (dB)	<35						
Operating temperature (°C)	5 to 45						
Ambient relative humidity (%)	20 to 80						
Gas connection	1/8" Swagelok						
Max capacity (Nml/min)	150	250	400	600	800	1000	1200

MARS	150 D	250 D	400 D	600 D	800 D	1000 D	1200 D
H2 Flow (cc/min)	150	250	400	600	800	1000	1200
H2 Purity (%)*	99,99999						
H2 Production technique	PEM						
Dew Point	-50°						
Max. Outlet H2 pressure (bar/psi)	10 / 145 (15 / 217 optional)						
Water quality	Deionized, ASTM II, <0.1µS						
Internal tank capacity (L)	5						
Display	3,5" Colour touch screen						
Communication port	Ethernet						
Dimensions L x W x H (mm)	250 x 460 x 500						
Power Supply	230 or 110V ± 10% - 50/60Hz						
Max. power consumption (W)	170	200	250	325	375	400	460
Net Weight (kg)	19	19	19	25	25	27	27
Noise level (dB)	<35						
Operating temperature (°C)	5 to 45						
Ambient relative humidity (%)	20 to 80						
Gas connection	1/8" Swagelok						
Max capacity (Nml/min)	150	250	400	600	800	1000	1200

* Referred to O2 content

MARS	Max. H2O consumption (mL/h)	Max. H2 production (L/h)
150 N & D	7,2	9
250 N & D	12	15
400 N & D	19,2	24
600 N & D	28,8	36
800 N & D	38,4	48
1000 N & D	48	60
1200 N & D	57,6	72

NITROGEN GENERATORS

N_2

Introducing the future of nitrogen generation: the GALILEO, LYRA, and ARIES nitrogen generators. Leveraging advanced PSA (Pressure Swing Adsorption) or cutting-edge membrane air filtration technologies, these systems deliver nitrogen at optimal pressures for your lab, eliminating the need for any extra equipment.

With ErreDue Lab N2 generators, modularity is key. Adjust flow rate and pressure effortlessly to achieve the desired purity level. Consistent, high-purity nitrogen production is guaranteed, with an integrated purity analyzer for real-time performance monitoring.

Designed with simplicity in mind, our generators require only minimal electric power and compressed air to kickstart nitrogen production.

Clean, efficient, and designed for you.

MAIN FEATURES

- Complete product range for analytical laboratories
- Ultra-Pure N_2 models for critical applications
- Catalytic furnace for total hydrocarbons (THC) removal
- Low noise level
- Built-in Air compressor option
- Designed for continuous operation
- Minimum maintenance required
- Robust and reliable
- Residual oxygen sensor

MAIN APPLICATIONS					
LC-MS	ELSD	LC-MS/MS	ICP-OES	SPE	TOD
TGA	GLOVE BOX	DSC	SAMPLE EVAPORATOR		

TECHNICAL SPECIFICATIONS

GALILEO	TC	T2	T4	T6	T8	T10
N2 max. Flow (L/min)	2	16	31	47	62	78
N2 max. Purity (%)*	99,9995	99,999	99,999	99,999	99,999	99,999
Dew-point (°C)	-35°					
Max. Outlet N2 pressure (bar/psI)	7/101					
Required Inlet Air pressure (bar/psi)	Air Compressor built-in	8/116	8/116	8/116	8/116	8/116
Inlet Air quality	iSO8573-1:2010 Class 1.4.1					
N2 production technique	PSA					
Hydrocarbon free option	Available**	Available**	Available**	None	None	None
Display	3,5" Colour touch screen					
Communication port	RS485 - Ethernet					
Dimensions L x W x H (mm)	600 x 750 x 760	440 x 850 x 760				
Power Supply	230V - 50Hz	110/230V ± 10% - 50/60Hz				
Power consumption (W)	1000	80				
Net Weight (kg)	95	75	90	105	120	135
Noise level (dB)	<65	<40	<40	<40	<40	<40
Operating temperature (°C)	5 to 45					
Ambient relative humidity (%)	20 to 80					
Gas connections (IN and OUT)	1/4" GAS - Female					

* Referred to O2 content
** Available only for the 230V - 50/60Hz version (Power Consumption: 830W)

LYRA & ARIES	LYRA M1	LYRA M2	LYRA LC-MS	ARIES M1	ARIES M2
N2 max. Flow (L/min)	33	65	25 (N2) / 36 (Dry air)	100	200
N2 max. Purity (%)*	99,95	99,95	99,95 (N2)	99,95	99,95
Dew-point (°C)	-40°				
Max. Outlet N2 pressure (bar/psI)	9/130	9/130	7,5/110	9/130	9/130
Air compressor	Built-in				
N2 production technique	Membrane				
Display	3,5" Colour touch screen				
Communication port	RS485 - Ethernet				
Dimensions L x W x H (mm)	440 x 850 x 760	440 x 850 x 760	600 x 750 x 760	630 x 830 x 1400	630 x 830 x 1400
Power Supply	230V ± 10% - 50Hz				
Max. power consumption (W)	1000	1800	1800	1700	3500
Net Weight (kg)	85	120	130	170	210
Noise level (dB)	< 65			< 70	
Operating temperature (°C)	5 to 40				
Ambient relative humidity (%)	20 to 80				
Gas connections (IN and OUT)	1/4" GAS - Female				

* Referred to O2 content

AIR GENERATORS

Zero Air

Introducing the ORION-Z and ORION-P Air Generators – clean air like never before. ORION-Z Zero Air generators revolutionize the way we think about compressed air.

By channeling air into a high-temperature reactor with a catalyst, ORION strip away hydrocarbons, delivering pure and uninterrupted air flow. Simple, efficient, revolutionary.

Taking it a step further, the ORION-P Pure Air generators not only purify but also dry hydrocarbon-free air with a self-regenerating reactor. Plus, ORION feature a sleek touchscreen display for real-time monitoring of gas flow and pressure. No fuss, just plug-in and breathe easy.

Both ORION-Z and ORION-P operate autonomously, generating only the air you need without waste, leading to impressive energy savings. ORION designs optimizes Return on Investments (ROI), requiring minimal maintenance.
Designed to meet the majority of laboratory needs, ORION-Z generators come in five models, setting new standards in reliability and efficiency.

Experience the future of clean air with ORION – innovation at its finest.

MAIN FEATURES

- Ultra-Pure, Hydrocarbon free dry air
- Up to 32L/min air flow
- Self-regenerating reactor
- Increase resolution and detection limits of GC instrumentation
- Wall & Floor-standing design
- Minimum maintenance required
- Robust and reliable

MAIN APPLICATIONS			
GC	TD	THA	TOC
ELSD	LC-MS	MP-AES	NMR

TECHNICAL SPECIFICATIONS

ORION Z	Z0	Z1	Z2	Z3	Z4
Air Flow (L/min)	2	4	8	16	32
Dew-point (°C)	-20° (INLET AIR)				
Hydrocarbon max. content (ppm)	<0,05				
Max. Outlet Air pressure (bar/psi)	9 / 130				
Inlet Air quality	ISO8573-1:2010 Class 1.4.1				
Max. Required Inlet Air pressure (bar/psi)	9,5 / 137				
ON/OFF Flow Valve	Included				
Display	LED				
Communication port	None				
Dimensions L x W x H (mm)	450 x 450 x 200	480 x 240 x 670			
Power Supply	230V or 110V ± 10% - 50/60Hz				
Max. power consumption (W)	750	750	750	1500	1500
Net Weight (kg)	15	24	24	27	27
Noise level (dB)	<35				
Operating temperature (°C)	5 to 45				
Ambient relative humidity (%)	20 to 80				
Gas connections (IN and OUT)	1/4" GAS - Female				

* Referred to O2 content

ORION P	P1	P2	P3	P4
Air Flow (L/min)	4	8	16	32
Dew-point (°C)	< -50°			
Hydrocarbon max. content (ppm)	<0,05			
Max. Outlet Air pressure (bar/psi)	9 / 130			
Inlet Air quality	ISO8573-1:2010 Class 1.4.1			
Max. Required Inlet Air pressure (bar/psi)	9,5 / 137			
ON/OFF Flow Valve	Included			
Display	3,5" Colour touch screen			
Communication port	Ethernet			
Dimensions L x W x H (mm)	370 x 760 x 590			
Power Supply	230V or 110V ± 10% - 50/60Hz			
Max. power consumption (W)	1300	1300	2600	2600
Net Weight (kg)	55	60	75	80
Noise level (dB)	<35			
Operating temperature (°C)	5 to 45			
Ambient relative humidity (%)	20 to 80			
Gas connections (IN and OUT)	1/4" GAS - Female			

* Referred to O2 content

OXYGEN GENERATORS

O_2

Introducing the GEMINI laboratory oxygen generators, where innovation meets simplicity.

Harnessing the power of PSA technology, GEMINI transforms compressed air into pure, life-giving oxygen with effortless precision. All you need is power and compressed air to unlock its potential.

Available in five distinct models, each tailored to different flow rates and purity levels, GEMINI operates independently, generating only what you need to minimize waste and maximize efficiency.

GEMINI's modular design lets you easily expand oxygen production to meet your needs. Experience the future of oxygen generation with GEMINI.

MAIN FEATURES

- PSA-based technology
- Compact design
- Low noise level
- Up to 95% O_2 purity
- Stand-alone Air compressor option
- Easy connection with Bioreactors
- Low power consumption

MAIN APPLICATIONS	
MEDICAL	R&D LABORATORY
BIOLOGICAL LABORATORY	CLINIC

TECHNICAL SPECIFICATIONS

GEMINI	T2	T4	T6	T8	T10
O2 max. Flow (L/min)	3	6	9	12	15
O2 max. Purity (%)*	95				
Max. Outlet O2 pressure (bar/psI)	3,5 / 50				
Inlet Air quality	iSO8573-1:2010 Class 1.4.1				
Max. Required Inlet Air pressure (bar/psi)	7 / 101				
Display	3,5" Colour touch screen				
Communication port	RS485 - Ethernet				
Dimensions L x W x H (mm)	440 x 850 x 760				
Power Supply (V-Hz)	110/230V ± 10% - 50/60Hz				
Max. power consumption (W)	100				
Net Weight (kg)	75	90	105	120	135
Noise level (dB)	<35				
Operating temperature (°C)	5 to 45				
Ambient relative humidity (%)	20 to 80				
Gas connections (IN and OUT)	1/4" GAS - Female				

Discover ErreDue Lab Air Compressors

AIR COMPRESSORS

Here's the thing—innovation isn't about making another compressor. It's about redefining what air compression means.

ErreDue Lab isn't just building air compressors. We are designing silent, vibration-free powerhouses that serve research, environmental, pharmaceutical, per-trolchmical, and organic laboratories that shape our future.
These are the places where precision matters. Where clean, dry, compressed air isn't just useful—it's essential.

ANDROMEDA and PEGASO air compressors aren't just built to perform. They're designed to integrate seamlessly with ErreDue Lab gas generators, creating a system that delivers pure efficiency.

ANDROMEDA	40	80
Dimensions L x W x H (mm)	400 x 855 x 760	
Power Supply	230 or 110V ± 10% - 50/60Hz	
Net Weight (kg)	75	100
Max. Flow (Nlt/min)	55	110
Max. Pressure (bar)	8	
Nominal power (W)	1000	1800
Noise (dBA)	< 65	

PEGASO	140	280
Dimensions L x W x H (mm)	630 x 830 x 1400	
Power Supply	230 or 110V ± 10% - 50/60Hz	
Net Weight (kg)	170	210
Max. Flow (Nlt/min)	180	360
Max. Pressure (bar)	8	
Nominal power (W)	1700	3500
Noise (dBA)	< 70	

ABOUT US

ErreDue Lab is redefining gas generators. A specialised division of ErreDue, a leading company with over 40 years of experience in the design and production of high quality gas generators, ErreDue Lab has been dedicated to analytical and medical laboratories since 2015, when it launched the first laboratory hydrogen generator based on PEM technology. Since then, our mission is to promote innovation and ensure excellent performance, offering superior quality products.

ErreDue Lab holds numerous quality, environmental, safety and social responsibility Certifications, including ISO 9001, ISO 14001, ISO 45001, SA 8000 and CE certification, guaranteeing high production standards and sustainability.

Every generator is fully made in Livorno, Italy. We invest heavily in R&D, production, marketing, sales, and service support — all in-house. This makes ErreDue Lab a key player in several countries.

ErreDue Lab isn't just a supplier; it's your trusted partner for reliable gas solutions.

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International Organization for Standardization ISO

CE

LABBR12563