



The Gas generators

FOR GC/GCMS INSTRUMENTS!



UNIQUE TOWER / BENCHTOP AND FLOOR DESIGN

Expandable design
Unique Remote PC Control monitoring
Intelligent Screen

Ensuring that your laboratory is ready for the future !



“INNOVATION”
is at the heart of everything we do !



F-DGSi EXPERTISE IS DEFINED BY ALWAYS BEING ONE STEP AHEAD!

WE HAVE DESIGNED NEW TOWER SOLUTION THAT CAN FULFILL THE NEEDS OF ANY GC LABORATORY'S NEEDS.

WE MAKE THEM IN TOWER DESIGN...THEN WE SAVE SPACE AND REPLACE "UGLY-LOOKING" INSTRUMENTS BY FASHIONABLE DESIGN. THE "TOWER" GAS GENERATORS INCORPORATES THE LATEST TECHNOLOGIES AVAILABLE, IN A SLEEK AND APPEALING DESIGN IN ORDER TO GROW WITH YOUR LAB.

THIS NEW SOLUTION ALLOWS YOU TO ADD MULTIPLE GENERATORS AS YOUR GAS AND ANALYSIS DEMANDS CHANGE.

WHY "TOWER GAS GENERATORS DESIGN" IS THE COMPLETE SOLUTION FOR GC/GCMS LABS?

- Modular system offering a GC gas supply solution specific to your lab
- Unique Tower design allowing you to save space in the lab
- Combinations available for Single and Multiple GC applications
- Very low maintenance throughout the range without opening any covers
- Digital screen display showing the status of the system with auto-diagnostics in case of alarms
- Exclusive cold dual regeneration dryer to ensure high H₂ purity
- 100% titanium PEM cell technology: guaranteed better H₂ purity and longer life than any other cells in the market
- PSA fast purity for UHP Nitrogen
- Unique Remote access via USB port (to carry out checks and maintenance effectively, only via a remote internet connection)
- Hydrogen sensor available as option to work in safety mode when using H₂ as carrier gas.

POSSIBLE COMBINATIONS

ZERO AIR+H₂

(FID station)



ZERO AIR+H₂+ZERO N₂

(Air and H₂ for FID and ZERO N₂ for carrier gas and make up)



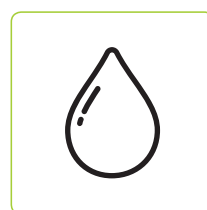
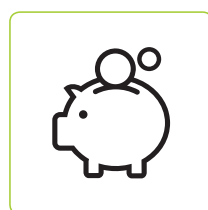
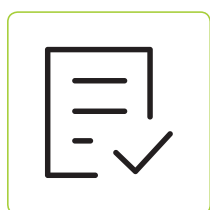
ZERO AIR + HIGH PURITY H₂ + ZERO N₂ + AIR COMPRESSOR

(Total solution for detector and carrier (N₂ or H₂) with air compressor)



COMPACT, CONVENIENT, SAFE, ECONOMIC, PURE, GREEN THAN GAS CYLINDERS, DEWARS OR BULK STORAGE

- **Compact:** can be located either on the bench or on the floor next to your GC instrument
- **Convenient :** No cylinder changes
- **Safer :** removes the need and leaks for long gas lines from cylinders and the risk of high pressure cylinders
- **Economic :** No gas contract administration, Low and stable ongoing gas costs
- **Purity :** the gas purity is constant - do not need to add extra gas filters
- **Green :** No repeated gas deliveries, energy efficient





STANDARD OR HIGH PURITY GAS GENERATORS TO SUIT YOUR NEEDS

**F-DGSI WILL PROPOSE YOU THE RIGHT MODEL FOLLOWING
THE 'LIMIT OF DETECTION' YOU ARE LOOKING FOR
IN YOUR GC RESULTS.**

**AT THE LOWER EXTREMES OF DETECTION ACCURATE RESULTS
CAN ONLY BE OBTAINED WITH THE LOWEST POSSIBLE BASELINE.**

**CREATING SUCH A BASELINE REQUIRES
THE USE OF ULTRA PURE GASES.**

**THIS IS WHY F-DGSI OFFERS A "STANDARD GAS GENERATOR" AS WELL AS A
"HIGH PURITY GAS GENERATOR" FOR HIGH PURITY GRADE ANALYSIS
SOLUTION.**

**THE H₂ AND N₂ GENERATORS ARE AVAILABLE IN TWO SOLUTIONS
(STANDARD AND HIGH PURITY GRADE PURITIES).**

**FOR MOST GC DETECTORS LIKE FID, THE STANDARD PURITY GAS IS SUFFICIENT
BUT FOR CARRIER GAS USE, HIGH PURITY GRADE GAS IS RECOMMENDED.**

GET ALL THE BENEFITS OF THE H₂ GENERATOR AS CARRIER GAS

..... INSTEAD OF HE

Eliminate the risks in using Hydrogen as a Carrier Gas in GC Analysis

Hydrogen has long been considered as the best carrier gas for gas chromatography. In many cases hydrogen has become the carrier gas of choice since it results in fast analysis, high efficiency, reduced costs, and prolonged column life.

Fast analysis

The diffusion rate of hydrogen and helium are roughly the same (both 3-4 times faster than N₂), but hydrogen is half as viscous as helium and therefore the linear gas velocity is higher and retention times are shorter in isothermal analysis.

High efficiency

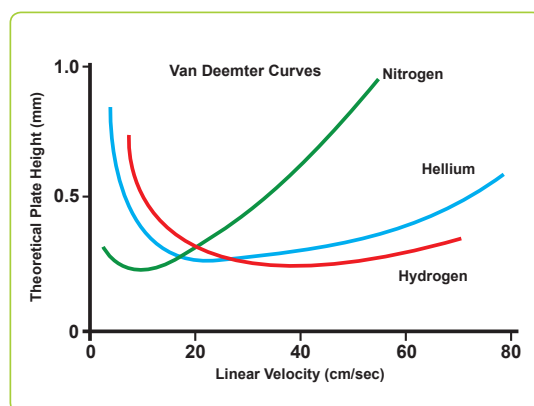
Hydrogen has the flattest Van Deemter curve. Compared to helium and nitrogen, hydrogen needs the lowest plate number to achieve the same resolution over a large range of linear velocity

Prolonged column life

For some applications, a temperature program can be used to speed up the analysis when using helium as a carrier gas, but this may result in a shorter lifetime of the column due to higher temperatures.

Reduced costs

Helium, a rival to Hydrogen has its advantages as a carrier gas for GC; but it also has key disadvantages which are cost and availability. A tank of GC quality hydrogen is approximately 3 times less expensive than its helium equivalent. The price disparity between the two will not improve as the existing helium reserves are drying up and the demand is increasing across different industries. The use of a hydrogen generator also provides long term cost savings. A hydrogen generator allows for the production of the gas on an as needed basis; which avoids the costs associated with storing gas.



..... WITHOUT ANY RISK !

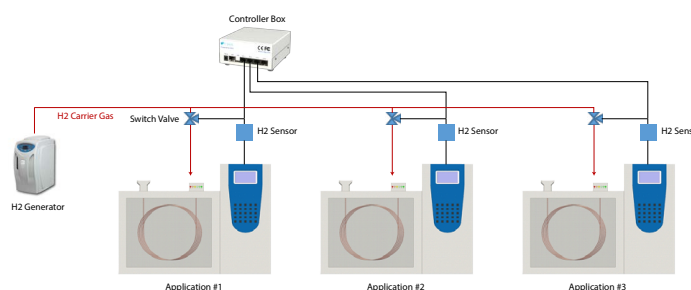
The F-DGSi H₂ generator was designed to have a high level of operator safety

- Unique 9 stage, fail safe, explosion protection system.
- Automatic internal/external H₂ leak detection.
- Unique 100% titanium cell
- Very small stored volume of H₂
- H₂ gas is only generated on demand

If still worried,

- H₂ sensor in option for carrier gas use

The sensor can work as standalone mode by using an external box and a gas switching valve. The sensor is installed in the GC oven for continuous monitoring of H₂ concentrations in the oven. The measured gas concentration is shown on the LCD screen of the external controller. When the hydrogen concentration reaches the user defined level, typically between 25% and 50% LEL (equal to 1% - 2% by Vol H₂), the LCD screen starts flashing, an acoustic signal is transmitted and the carrier gas will automatically be switched to an inert gas. A SMS alarm text message can be sent as well. The external box is able to support up to 4 sensors.



HIGH PURITY GRADE ANALYSIS SOLUTION FOR GC CARRIER GAS AND GCMS APPLICATION

HIGH PURITY HYDROGEN SERIE MF.H2

KEY FEATURES

- Suitable for Carrier Gas and Flame Gas at low detection limits : **Purity > 99.99999 %**
- **Unique 100% titanium PEM Cell technology** to generate Hydrogen safely and reliably
- **Exclusive cold dual regeneration dryer** to ensure high level of purity
- Maintenance limited to replacing deioniser bag
- Creates Hydrogen on demand, minimal storage of Hydrogen in the system
- Internal/external leak detection with automatic shutdown features
- Cascading option to combine multiple units for higher flow requirements
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Hydrogen sensor available as option to work in safety mode when using H2 as carrier gas.



Remote PC monitoring via
RS232/RS485/USB



MODEL	MF.H2									
TECHNICAL SPECIFICATIONS	100	160	250	300	400	500	600	1000	1200	1400
H2 flow rate	100 cc/min	160 cc/min	250 cc/min	300 cc/min	400 cc/min	500 cc/min	600 cc/min	1000 cc/min	1200 cc/min	1400 cc/min
H2 purity	> 99.99999 %									
O2 content / Moisture content	O2 < 0.1 ppm / dewpoint H2O < -75°C (-103°F)									
Delivery pressure	1 - 11 bar (14 - 160 psi)									
Water purity requirements	Deionised, ASTM II , < 0.1 µS Conductivity									
Power consumption	280 W to 800 W depends of the model									
Power supply	110 - 120 V 60 Hz / 220 - 240 V 50 Hz									
Dimensions (W x H x D)	23 x 48 x 37 cm (9" x 19" x 14.5")									
Communication	RS232/RS485 (Option) - USB/PC control monitoring (In series)									

STANDARD PURITY GRADE ANALYSIS SOLUTION FOR GC FUEL GAS APPLICATIONS

STANDARD HYDROGEN SERIE SD.H2

KEY FEATURES

- Suitable for Flame Gas at standard detection limits : **Purity > 99.9996 %**
- **Unique 100% titanium PEM Cell technology** to generate Hydrogen safely and reliably
- **Static membrane dryer:** maintenances-free, to ensure high level of H2 purity
- Maintenance limited to replacing deioniser bag



STANDARD HYDROGEN SERIE MB.H2

KEY FEATURES

- Suitable for Flame Gas at standard detection limits : **Purity > 99.9996 %**
- **Unique 100% titanium PEM Cell technology** to generate Hydrogen safely and reliably
- **Static membrane dryer:** maintenances-free, to ensure high level of H2 purity
- Maintenance limited to replacing deioniser bag
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose



STANDARD HYDROGEN SERIE MD.H2

KEY FEATURES

- Suitable for Flame Gas at standard detection limits : **Purity > 99.9996 %**
- **Unique 100% titanium PEM Cell technology** to generate Hydrogen safely and reliably
- **Dessicant cartridge to be replaced or refill when saturated,** to ensure high level of H2 purity
- Maintenance limited to replacing deioniser bag and refill dessicant cartridge
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose

COMMON FEATURES

- Creates Hydrogen on demand, minimal storage of Hydrogen in the system
- Internal/external leak detection with automatic shutdown features
- Cascading option to combine multiple units for higher flow requirements
- Hydrogen sensor available as option to work in safety mode when using H2 as carrier gas
- Automatic water refill available



MODEL	SD.H2		
TECHNICAL SPECIFICATIONS	100	160	250
H2 flow rate	100 cc/min	160 cc/min	250 cc/min
H2 purity	> 99.9996 %		
O2 content / Moisture content	O2 < 1 ppm / dewpoint H2O < -20°C (-4°F)		
Delivery pressure	1 - 7 bar (14 - 101.5 psi)		
Water purity requirements	Deionised, ASTM II , < 0.1 µS Conductivity		
Power consumption	280 W		
Power supply	110 - 120 V 50 Hz / 220 - 240 V 60 Hz		
Dimensions (W x H x D)	23 x 48 x 37 cm (9" x 19" x 14.5")		

MODEL	MB.H2						
TECHNICAL SPECIFICATIONS	100	160	250	300	400	500	600
H2 flow rate	100 cc/min	160 cc/min	250 cc/min	300 cc/min	400 cc/min	500 cc/min	600 cc/min
H2 purity	> 99.9996 %						
O2 content / Moisture content	O2 < 1 ppm / dewpoint H2O < -30°C (-22°F)						
Delivery pressure	1 - 11 bar (14 - 160 psi)						
Water purity requirements	Deionised, ASTM II , < 0.1 µS Conductivity						
Power consumption	280 W to 450 W depends of the model						
Power supply	110 - 120 V 50 Hz / 220 - 240 V 60 Hz						
Dimensions (W x H x D)	23 x 48 x 37 cm (9" x 19" x 14.5")						

MODEL	MD.H2						
TECHNICAL SPECIFICATIONS	100	160	250	300	400	500	600
H2 flow rate	100 cc/min	160 cc/min	250 cc/min	300 cc/min	400 cc/min	500 cc/min	600 cc/min
H2 purity	> 99.9996 %						
O2 content / Moisture content	O2 < 1 ppm / dewpoint H2O < -55°C (-67°F)						
Delivery pressure	1 - 7 bar (14 - 101.5 psi)						
Water purity requirements	Deionised, ASTM II , < 0.1 µS Conductivity						
Power consumption	280 W to 450 W depends of the model						
Power supply	110 - 120 V 50 Hz / 220 - 240 V 60 Hz						
Dimensions (W x H x D)	23 x 48 x 37 cm (9" x 19" x 14.5")						

COMBINED STANDARD HYDROGEN/ZERO AIR GENERATOR FOR GC FUEL GAS APPLICATIONS

TOWER FID STATION SERIE T.FID.MB.H2

Combines the hydrogen serie MB.H2 and Zero Air serie ZA generators.

Hydrogen gas is produced from deionized water using a unique 100% titanium PEM cell technology. Zero Air is produced by purifying compressed air sourced from the air network.

KEY FEATURES

- Suitable for Flame Gas at standard detection limits :
- **Purity > 99.9996%**, O₂ < 1 ppm; H₂O < -30°C (-22°F)
- CH₄ < 0.05 ppm
- CO < 0.05 ppm



COMBINED HIGH PURITY HYDROGEN/ZERO AIR GENERATOR FOR GC CARRIER GAS AND GCMS APPLICATION

TOWER FID STATION T.FID.MF.H2

Combines the hydrogen serie MF.H2 and Zero Air serie ZA generators in one box.

Hydrogen gas is produced from deionized water using unique 100% titanium PEM cell technology. Zero Air is produced by purifying compressed air sourced from the air network.

KEY FEATURES

- Suitable for Flame Gas at standard detection limits :
- **Purity > 99.99999%**, O₂ < 0.1 ppm; H₂O < -75°C (-103°F)
- CH₄ < 0.05 ppm
- CO < 0.05 ppm

COMMON FEATURES

- Creates Hydrogen on demand, minimal storage of Hydrogen in the system
- Internal water tank of 5L: do not need to use an external water tank
- Internal/external leak detection with automatic shutdown features
- Alarms for catalyst duration, catalyst temperature, and pressure for Zero Air
- Cascading option to combine multiple units for higher flow requirements
- Hydrogen sensor available as option to work in safety mode when using H₂ as carrier gas



MODEL	T.FID.MB.H2	
TECHNICAL SPECIFICATIONS	100 / 1800 160 / 1800 250 / 1800	250 / 5000 - 300 / 5000 500 / 5000 - 600 / 5000
H2 / Zero Air flow rate	100 / 1800 cc/min 160 / 1800 cc/min 250 / 1800 cc/min	250 / 5000 cc/min - 300 / 5000 cc/min 500 / 5000 cc/min - 600 / 5000 cc/min
H2 / Zero Air purity	> 99.9996 % (O ₂ < 1 ppm, dewpoint H ₂ O < -30°C (-22°F)) / CH ₄ < 0.05 ppm	
H2 delivery pressure	11 bar max (160 psi)	
Air inlet pressure	Min. 4 bar (58 psi) - Max. 10 bar (145 psi)	
Air inlet quality required	Max. inlet hydrocarbon content < 100 ppm ; water dewpoint < -20°C (-4°F)	
Air delivery pressure	0.5 bar (8 psi) less than inlet air pressure	
Water quality	Deionised, ASTM II, < 0.1 µS	
Power supply voltage	110 - 120 V 60 Hz / 220 - 240 V 50 Hz	
Dimensions (W x H x D)	14 x 49 x 58 cm (5.5" x 19" x 23")	
Communication	RS232/RS485 (Option) - USB/PC control monitoring (In series)	

MODEL	T.FID.MF.H2	
TECHNICAL SPECIFICATIONS	100 / 1800 - 160 / 1800 250 / 1800 - 300 / 1800 500 / 1800	250 / 5000 - 300 / 5000 500 / 5000 - 600 / 5000 1000 / 5000
H2 / Zero Air flow rate	100 / 1800 cc/min - 160 / 1800 cc/min 250 / 1800 cc/min - 300 / 1800 cc/min 500 / 1800 cc/min	250 / 5000 cc/min - 300 / 5000 cc/min 500 / 5000 cc/min - 600 / 5000 cc/min 1000 / 5000 cc/min
H2 / Zero Air purity	> 99.99999 % (O ₂ < 0.1 ppm, dewpoint H ₂ O < -75°C (-103°F)) / CH ₄ < 0.05 ppm	
H2 delivery pressure	11 bar max (160 psi)	
Air inlet pressure	Min. 4 bar (58 psi) - Max. 10 bar (145 psi)	
Air inlet quality required	Max. inlet hydrocarbon content < 100 ppm ; water dewpoint < -20°C (-4°F)	
Air delivery pressure	0.5 bar (8 psi) less than inlet air pressure	
Water quality	Deionised, ASTM II, < 0.1 µS	
Power supply voltage	110 - 120 V 60 Hz / 220 - 240 V 50 Hz	
Dimensions (W x H x D)	14 x 49 x 58 cm (5.5" x 19" x 23")	
Communication	RS232/RS485 (Option) - USB/PC control monitoring (In series)	



HIGH PURITY GRADE ANALYSIS SOLUTION FOR GC CARRIER GAS AND GCMS APPLICATION

HIGH PURITY ZERO NITROGEN SERIE T.ZN2.HP

KEY FEATURES

- Suitable for Carrier Gas and Make Up Gas at low detection limits : **Purity > 99.9995 %**
- Generates **Zero Nitrogen on demand** from external compressed air
- Regenerative CMS columns remove Oxygen and moisture
- **Catalyst chamber to remove Hydrocarbons (as methane) to < 0.05 ppm**
- Ultra fast start-up time, quick to reach operating purity
- Minimum maintenance with an annual filter change
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Unique tower design to save bench space
- Dedicated Alliance Air Compressor available



STANDARD PURITY GRADE ANALYSIS SOLUTION FOR MAKE UP AND SAMPLE PREP (HEADSPACE)

STANDARD NITROGEN SERIE T.N2.HP

KEY FEATURES

- Suitable for Make Up and Sample Prep (Headspace) Gas at standard detection limits: **Purity > 99.9995 %**
- Generates Nitrogen on demand from external compressed air
- Regenerative CMS columns remove Oxygen and moisture
- Ultra fast start-up time, quick to reach operating purity
- Minimum maintenance with an annual filter change
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Unique tower design to save bench space
- Dedicated Alliance Air Compressor available



MODEL	T.ZN2.HP	
TECHNICAL SPECIFICATIONS	500	750
N2 flow rate	500 cc/min	750 cc/min
N2 purity	> 99.9995 % (< 5 ppm O2 @ 7 bar (101.5 psi) inlet pressure)	
O2 content	< 5 ppm	
Hydrocarbon content	< 0.05 ppm	
Air inlet flow rate	15 L/min	18 L/min
Min. Air supply pressure	7 bar (101.5 psi)	
Max. Air supply pressure	10 bar (145 psi)	
Power consumption	270 W	
Supply rating	110 - 120 V 60 Hz / 220 - 240 V 50 Hz	
Dimensions (W x H x D)	14 x 49 x 63 cm (5.5" x 19" x 25")	
Communication	RS232/RS485 (Option) - USB/PC control monitoring (In series)	

MODEL	T.N2.HP	
TECHNICAL SPECIFICATIONS	500	750
N2 flow rate	500 cc/min	750 cc/min
N2 purity	> 99.9995 % (< 5 ppm O2 @ 7 bar (101.5 psi) inlet pressure)	
O2 content	< 5 ppm	
Air inlet flow rate	15 L/min	18 L/min
Min. Air supply pressure	7 bar (101.5 psi)	
Max. Air supply pressure	10 bar (145 psi)	
Power consumption	20 W	
Supply rating	110 - 120 V 60 Hz / 220 - 240 V 50 Hz	
Dimensions (W x H x D)	14 x 49 x 63 cm (5.5" x 19" x 25")	
Communication	RS232/RS485 (Option) - USB/PC control monitoring (In series)	



HIGH PURITY GRADE ANALYSIS SOLUTION FOR GC CARRIER GAS AND GCMS APPLICATION

HIGH PURITY ZERO NITROGEN SERIE Z-ALIZE

KEY FEATURES

- Suitable for Carrier Gas and Make Up Gas at low detection limits : **Purity > 99.9995 %**
- Generates **Zero Nitrogen on demand** from external compressed air or from integrated air compressor
- Regenerative CMS columns remove Oxygen and moisture
- **Catalyst chamber to remove Hydrocarbons (as methane) to < 0.05 ppm**

STANDARD PURITY GRADE ANALYSIS SOLUTION FOR MAKE UP AND SAMPLE PREP (HEADSPACE)

STANDARD NITROGEN SERIE MINI ALIZE / ALIZE

KEY FEATURES

- Suitable for Make Up and Sample Prep (Headspace) Gas at standard detection limits : **Purity > 99.9995 %**
- Generates Nitrogen on demand from external compressed air or from integrated air compressor
- Regenerative CMS columns remove Oxygen and moisture

COMMON FEATURES

- Ultra fast start-up time, quick to reach operating purity
- Minimum maintenance with an annual kit filter change for models without air compressor
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Fully regenerative PSA technology; reduced risk of gas contamination
- HMI touch screen technology to display the process in real time, including process variables
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Integral oil free compressor in option: fully secure supply
- Quiet: soundproofed compressor box and anti-vibration features
- Auto start
- Audible and Alarm display with help menu and history log
- Visual maintenance indication with alarm and history log
- Outlet flow indicator
- Fitted with wheels



MODEL	Z-ALIZE					
TECHNICAL SPECIFICATIONS	Z-ALIZE-1/0	Z-ALIZE-1/1	Z-ALIZE-3/0	Z-ALIZE-3/1	Z-ALIZE-6/0	Z-ALIZE-6/1
N2 flow rate via O2 content 5 ppm (> 99.9995%)	1.0 L/min		3.0 L/min		5.0 L/min	
Outlet pressure	5.5 bar (80 psi)				7 bar (101 psi)	
Max. Air inlet pressure (units without compressor)	8 bar (116 psi)					
Air inlet Requirement (units without compressor)	Dewpoint -40°C (-40°F), Particles < 1 micron, Oil < 0.01 mg/m3					
Built in with air compressor	No	Yes	No	Yes	No	Yes
Dimensions (W x H x D)	34 x 77 x 69 cm (13" x 30" x 27")			43 x 83 x 80 cm (17" x 33" x 31")		

MODEL	ALIZE					
TECHNICAL SPECIFICATIONS	ALIZE-1/0	ALIZE-1/1	ALIZE-3/0	ALIZE-3/1	ALIZE-6/0	ALIZE-6/1
N2 flow rate via O2 content 5 ppm (> 99.9995%)	1.0 L/min		3.0 L/min		5.0 L/min	
Outlet pressure	5.5 bar (80 psi)				7 bar (101 psi)	
Max. Air inlet pressure (units without compressor)	8 bar (116 psi)					
Air inlet Requirement (units without compressor)	Dewpoint -40°C (-40°F), Particles < 1 micron, Oil < 0.01 mg/m3					
Built in with air compressor	No	Yes	No	Yes	No	Yes
Dimensions (W x H x D)	34 x 77 x 69 cm (13" x 30" x 27")			43 x 83 x 80 cm (17" x 33" x 31")		

MODEL	MINI ALIZE			
TECHNICAL SPECIFICATIONS	MINI ALIZE-300/0	MINI ALIZE-300/1	MINI ALIZE-600/0	MINI ALIZE-600/1
N2 flow rate via O2 content 5 ppm (> 99.9995%)	0.3 L/min		0.6 L/min	
Outlet pressure	5.5 bar (80 psi)			
Max. Air inlet pressure (units without compressor)	8 bar (116 psi)			
Air inlet Requirement (units without compressor)	Dewpoint -40°C (-40°F), Particles < 1 micron, Oil < 0.01 mg/m3			
Built in with air compressor	No	Yes	No	Yes
Dimensions (W x H x D)	36 x 40 x 54 cm (14" x 15" x 21")			

STANDARD PURITY ANALYSIS SOLUTION FOR GC-FID, MAKE UP APPLICATION

COMBINED NITROGEN/AIR GENERATOR

SERIE ALLIA

KEY FEATURES

- Generates Nitrogen and Pure Air on demand from existing compressed air for GC-FID and make up
- N₂ Purity > 99.9995% (< 5 ppm O₂)
- Pure air purity < 0.1 ppm HCs, H₂O dewpoint < -55°C (-67°F)

HIGH PURITY ANALYSIS SOLUTION FOR GC-FID, CARRIER GAS APPLICATION

SERIE Z-ALLIA

KEY FEATURES

- Generates Zero Nitrogen and Pure Air on demand from existing compressed air for GC-FID and carrier gas
- N₂ Purity > 99.9995% (< 5 ppm O₂), CH₄ < 0.05 ppm
- Pure air purity < 0.1 ppm HCs, H₂O dewpoint < -55°C (-67°F)

COMMON FEATURES

- Fully regenerative PSA technology; reduced risk of gas contamination
- HMI touch screen technology to display the process in real time, including process variables
- USB port in series to remote the system by internet anywhere in the world for diagnostic purpose
- Integral oil free compressor in option: fully secure supply
- Quiet: soundproofed compressor box and anti-vibration features
- Auto start
- Audible and Alarm display with help menu and history log
- Visual maintenance indication with alarm and history log
- Outlet flow indicator
- Fitted with wheels



MODEL	ALLIA			
TECHNICAL SPECIFICATIONS	ALLIA-1/1	ALLIA-1/0	ALLIA-3/1	ALLIA-3/0
N2 / Air flow rate	1 / 1.5 L/min		3 / 3 L/min	
N2 / Air purity	> 99.9995 % (O ₂ < 5 ppm) / HCs < 0.1 ppm, dewpoint H ₂ O < -55°C (-67°F)			
N2 / Air delivery pressure	5.5 bar (80 psi)			
Air inlet pressure (units without compressor)	8 bar (116 psi)			
Air inlet quality required (units without compressor)	Dewpoint < -40°C (-40°F), Particles < 1 micron, Oil < 0.01 mg/m ³			
Built in with air compressor	Yes	No	Yes	No
Power supply voltage	110 - 120 V 60 Hz / 220 - 240 V 50 Hz			
Dimensions (W x H x D)	34 x 77 x 69 cm (13" x 30" x 27")		43 x 83 x 100 cm (17" x 33" x 39")	43 x 83 x 80 cm (17" x 33" x 31")
Communication	USB			

MODEL	Z-ALLIA			
TECHNICAL SPECIFICATIONS	Z-ALLIA-1/1	Z-ALLIA-1/0	Z-ALLIA-3/1	Z-ALLIA-3/0
Zero N2 / Air flow rate	1 / 1.5 L/min		3 / 3 L/min	
Zero N2 / Air purity	> 99.9995 % (O ₂ < 5 ppm, CH ₄ < 0.05 ppm) / HCs < 0.1 ppm, dewpoint H ₂ O < -55°C (-67°F)			
Zero N2 / Air delivery pressure	5.5 bar (80 psi)			
Air inlet pressure (units without compressor)	8 bar (116 psi)			
Air inlet quality required (units without compressor)	Dewpoint < -40°C(-40°F), Particles < 1 micron, Oil < 0.01 mg/m ³			
Built in with air compressor	Yes	No	Yes	No
Power supply voltage	110 - 120 V 60 Hz / 220 - 240 V 50 Hz			
Dimensions (W x H x D)	34 x 77 x 69 cm (13" x 30" x 27")		43 x 83 x 100 cm (17" x 33" x 39")	43 x 83 x 80 cm (17" x 33" x 31")
Communication	USB			

ZERO AIR GENERATOR FOR GC FUEL GAS APPLICATION

ZERO AIR SERIE T.ZA

KEY FEATURES

- Generates Zero Air on demand from clean and dry external compressed air
- **Catalyst chamber to remove Hydrocarbons (as methane) to < 0.05 ppm**
- Minimum maintenance with an annual filter change
- Unique Tower design
- Status indicative lighting features
- Alarms for catalyst duration, catalyst temperature, and pressure
- Compatible with Alliance Air compressor

ZERO AIR - SERIE UZAG

KEY FEATURES

- Generates Zero Air on demand from integrated air compressor
- **Catalyst chamber to remove Hydrocarbons (as methane) to < 0.05 ppm**
- Floor design mounted with wheels
- HMI touch screen technology to display the process in real time, including process variables
- Quiet: soundproofed compressor box and anti-vibration features
- Audible and Alarm display with help menu and history log
- Visual maintenance indication with alarm and history log
- Remote access via USB port (to carry out checks and maintenance effectively, only via a remote internet connection)
- **Built in with air compressor**

ALLIANCE AIR COMPRESSOR

The F-DGSi Alliance Air Compressor module produces continuous, high quality oil-free, pre-dried air from an internal compressor. The Alliance Air Compressor module is the ideal solution for providing compressed air to a Zero Air and Nitrogen Generator, and for powering pneumatic valves or other applications in the lab.

KEY FEATURES

- Suitable oil free air compressor for a variety of zero air and N₂ Generator combinations
- Minimal noise emission due to insulated compressor compartment
- Minimal vibration through especially developed compressor anti-vibration mounts
- Automatic drain fit in standard
- Automatic stand-by-mode, when no compressed air is required, ensures long compressor life
- Compressor service indication



MODEL	T.ZA	
TECHNICAL SPECIFICATIONS	1800	5000
Flow rate	1.8 L/min	5 L/min
CH ₄ , CO, NO _x level out	CH ₄ < 0.05 ppm	
Zero air outlet pressure	6 bar (87 psi)	
Particle filtration level	< 0.1 micron	
Inlet air pressure	4.5 bar (64 psi) - 10 bar (145 psi)	
Air inlet quality required	HCs < 100 ppm, dewpoint H ₂ O < -20°C (-4°F)	
Dimensions (W x H x D)	14 x 49 x 63 cm (5.5" x 19" x 25")	

MODEL	UZAG						
TECHNICAL SPECIFICATIONS	UZAG-1-1	UZAG-3-1	UZAG-6-1	UZAG-10-1	UZAG-20-1	UZAG-35-1	UZAG-50-1
Ultra Zero Air flowrate	1.5 L/min	3 L/min	6 L/min	10 L/min	20 L/min	35 L/min	50 L/min
Zero air outlet pressure	6 bar (87 psi) max.						
CH ₄ , CO, NO _x level out	< 0.05 ppm						
CO ₂ level out	< 5 ppm						
Particle filtration level	0.1 micron						
Water dewpoint	-50°C (-58°F)						
Built in with air compressor	Yes						
Dimensions (W x H x D)	34 x 77 x 69 cm (13" x 30" x 27")			43 x 83 x 80 cm (17" x 33" x 31")		43 x 83 x 100 cm (17" x 33" x 39")	

MODEL	ALLIANCE AIR COMPRESSOR
TECHNICAL SPECIFICATIONS	AIR COMPRESSOR
Flow rate	26 L/min
Max pressure outlet	8 bar (116 psi)
Air outlet dewpoint	- 20°C (- 4°F)
Particles	< 0.1 microns
Power consumption	510 - 1150 W
Electrical requirement	110 - 115 V 50/60 Hz 10A / 208 - 230 V 50/60 Hz 2.45A
Operating temperature	5 - 25°C (41 - 77°F)
Dimensions (W x H x D)	36 x 40 x 54 cm (14" x 16" x 21")

GOLD SERVICE, A CUSTOMER SERVICE OF EXCELLENCE !

BY INVESTING IN A F-DGSI GAS GENERATOR, YOU BUY MORE THAN JUST A GENERATOR AND START A LONG PARTNERSHIP WITH F-DGSI.

F-DGSI IS PROUD TO OFFER A VERY HIGH QUALITY CUSTOMER SERVICE, WHEREVER YOUR LABORATORY IS LOCATED. THE F-DGSI GOLD SERVICE AFTER-SALES SERVICE NOT ONLY KEEPS YOUR GENERATORS IN GOOD WORKING ORDER, IT ALSO GUARANTEES OUTSTANDING PERFORMANCE THROUGHOUT THEIR LIFE CYCLE.

WITH GOLD SERVICE, YOU ARE ENTITLED TO AN ANNUAL REVIEW OF ALL YOUR DEVICES AND PRIORITY ACCESS TO THE SERVICES OF CERTIFIED ENGINEERS CAPABLE OF IMMEDIATE REPAIR 9 TIMES OUT OF 10 AND WITHIN 48 HOURS. *

IN CASE OF MALFUNCTION OF YOUR GENERATOR, F-DGSI IS NEVER FAR AWAY. THANKS TO OUR NETWORK OF AUTHORIZED DISTRIBUTORS DEPLOYED IN MORE THAN 50 COUNTRIES, WE CAN QUICKLY ATTEND YOUR LABORATORY TO CARRY OUT REPAIRS SO THAT YOU CAN RESUME YOUR ACTIVITIES AS SOON AS POSSIBLE.

WITH PRIORITY ON-SITE REPAIRS AND SCHEDULED MAINTENANCE ARRANGED TO SUIT YOU, OUR GOLD SERVICE 48H CONTRACT HELPS YOU REDUCE INTERRUPTIONS IN LAB OPERATIONS AND IMPROVE EFFICIENCY AND PRODUCTIVITY WITH NO HIDDEN OR UNFORESEEN COSTS.

GOLD SERVICE THE BENEFITS

The "GOLD SERVICE" service contracts of F-DGSI offer you :

PEACE OF MIND

- Prompt on-site intervention guaranteed within 48 hours
- Discounted original F-DGSI parts
- F-DGSI service engineers able to solve up to 97% of problems first time
- Access to the full history of interventions
- Your equipment is integrated in our database so maintenance can be carried out at the same time each year

REDUCED DOWNTIME

- One preventive maintenance visit per year (or more) based on the number of hours per year. This is planned in advance at a convenient time to reduce the risk of breakdowns and downtime.
- Priority customer status for all calls concerning curative repairs with intervention in 48 hours maximum
- 24-hour priority access to the hotline support team for remote troubleshooting
- A program of upgrading and technical improvement to increase the life and performance of the devices

COST CONTROL

- Say goodbye to unexpected expenses and control the cost of use over the life of the device
- No additional fees for interventions, travel, labor and repair parts
- 15% discount on all the preventive parts included in the contract
- A reduction in hourly rate for maintenance activities
- Improved efficiency and reduced energy consumption costs
- Integral management of interventions, freeing up valuable time for your team
- Different payment methods

Register your equipment on our website to benefit from the guarantee on the date of installation and not on the date of delivery.

www.f-dgs.com/en/guarantees/

You have up to three months after the delivery date to register your hardware warranty so that it can start on the date of installation. Note that for H2 generators, it is imperative that it is installed within three months after the delivery date, or the hardware warranty may be cancelled.

In the case of a problem under warranty, our team of Service Engineers and / or our network of authorised distributors in the world

INSTALLATION & RELOCATION

INSTALLATION

F-DGSi has its own Authorized Service Engineers and more than 50 distributors worldwide to install our gas generators in your environment. During the installation process, we will ensure that the product works as designed to meet your needs. Contact us for more information.

RELOCATION

We can help with relocation for all instruments that it has installed or provided.

Occasionally, clients move to expand and / or reduce their lab ; F-DGSi can support uninstallation, re-installation and performance

VERIFICATION

We can also advise you on the specifications required for the design of your new laboratory, e.g. space to be allocated, gas supply, gas filtration, power outlets, environmental conditions and consumables. Call us directly to discuss your needs and receive a quote.

FOUR Q VALIDATION

F-DGSi can offer you the delivery of a 4Q certificate to prove compliance on all its devices.

It is specific to each gas generator and this document validates the device, its installation, operation and performance on the device of the client on which it is connected.

This certificate is established by performing a series of tests on the gas generator using calibrated measuring devices with a certificate of calibration.

Conception Qualification (CQ)
Installation Qualification (IQ)
Operational Qualification (OQ)
Performance Qualification (PQ)

RENTAL

F-DGSi, offers the rental of a wide range of equipment. .If you need equipment over a short period or if you do not have the investment budget rental is a good solution, or we can provide long term rental avoiding depreciation or capital budget expenditure.

Contact us for more information.



LAB GAS GENERATORS

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