

Gas Generators

Hydrogen
Nitrogen
Zero Air
Compressed Air
Purified Air

10



Hydrogen gas generator

Hydrogen gas generator at a glance (H_2 or H_2 +Zero Air all-in-one)

Hydrogen	Series	Max Outlet pressure	The range of flow rate		
High purity 99.9995%	HK Plus	7 bar (102 psi)	100-250 mL/min	Ideal for use for gas chromatography detectors such as: > GC - FID / GC - NPD / GC - TCD > Gas Reagent GC- ELCD / GC — HALL	He He
	PG Plus		100-600 mL/min	> Flame ionization detector (FID) > Collisions on ICP-MS	H2
	FID FLAT-PG Plus (+Air)		100-250 mL/min	> FID-S Can placement under a GC > Ideal for all GC Detectors	(H2)
High purity 99.9996%	FID TOWER-PG Plus (+Air)	11 bar (160 psi)	100-600 mL/min	> FID tower to conserve bench space > Ideal for all GC Detectors	(H2) (A)
	RACK-PG Plus (+Air)		100-600 mL/min	> Flame ionization detector (FID) > Fast GC > Collisions on ICP-MS	H2
	NM Plus			> Flame ionization detector (FID) > Carrier gas for GC and GC-MS > Fast GC > Collisions on ICP-MS	H)
	FID FLAT-NM Plus (+Air)			> FID-S Can placement under a GC > Ideal for all GC Detectors > Ideal used as Carrier Gas	Air)
Ultrapure 99.99996%	FID TOWER-NM Plus (+Air)	11 bar (160 psi)	100-1350 mL/min	> FID tower to conserve bench space > Ideal for all GC Detectors > Ideal used as Carrier Gas	(H2) (Air)
	RACK-NM Plus (+Air)			Flame ionization detector (FID) Carrier gas for GC and GC-MS Fast GC Collisions on ICP-MS	Air)



Nitrogen gas generator









N₂-TOWER Plus

WHISPER

MINI WHISPER

MISTRAL EVOLUTION

		Series	The range of flow rate L/min	With or without air compressors	Purity
		N ₂ -TOWER Plus (Oven)	0.2-4	without	99.9999%
M		MINI WHISPER	5-12	without	98~99.9%
IN ₂	(NZ)	WHISPER	40~120	without	98~99.9%
		MISTRAL EVOLUTION	10-40	with	98-99.9%
		Mini WUICDED Usbrid	5-12	without	98~99.9%
	Mini WHISPER Hybrid	WIIII WHISPEN HYDHU	35 (Air)	without	Zero air
		WILICOED The best of	10-120	without	98~99.9%
	No	WHISPER Hybrid	35 or 70 (Air)	without	Zero air
$N_2 + Air$	Ale	Up to 12	Up to 12	with	98~99.9%
		MISTRAL EVOLUTION HYBRID	Up to 24 (Air) Up to 8 (Air)	with	Zero air
		MICTRAL EVOLUTION CAS STATION	Up to 25	with	98~99.9%
		MISTRAL EVOLUTION GAS-STATION	Up to 40 (Air)	With	Zero air

Zero air generator

Zero Air and Ultra-Zero Air Generator at a glance







GC Series

GT Series

19" Rack Series

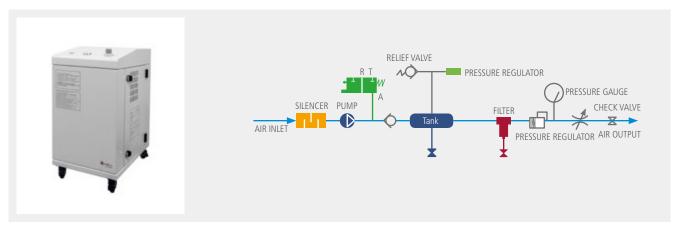
		Series	The range of flow rate L/min	Purity
		GC Zero Air	1.5-30	Zero Air
Air	Air	GT Ultri Zero Air	1.5-30	Ultra-Zero Air
		19" Rack GC Zero Air	1.8-15	Zero Air

Compressed Air System

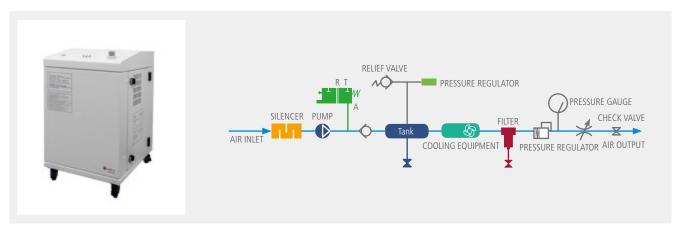
- > Compressed air system is designed for laboratory applications
- > P440 is a small size which is suitable for the supply of compressed air for work conditions with small flow rate and low pressure in the laboratory.
- > P640 is medium size which is suitable for continous supply of compressed air, equipped with condenser and filter to increase the output air purity.



Work flow of P440



Work flow of P640



Specifications

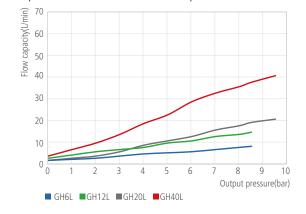
Model	P420	P440	P640
Order No.	167420-22	167440-22	167640-22
Max. Airflow (L/min)	25	30	60
Max. Pressure (bar)	5.5	5	8
Pressure adjustment range (bar)	-	0~5	0~8
Power(W)	95	750	550
Connection (mm)	G1/8	6mm quick connector or G1/4Male	
Air tank (L)	-	30	30
Weight(kg)	-	56	68
Noise (dB)	50	69	69
Dimension $L \times W \times H$ (mm)	370×152×165	$680 \times 340 \times 720$	640 × 470 × 720
Filter type	-	WND30005	WND30005
Running type	-	Switch: auto stop, start at 3bar and stop at 5bar.	Switch: auto stop, start at 3bar and stop at 6bar.
safety valve:	=	Release the air pressure automatically when the pressure over 8bar in the air tank	



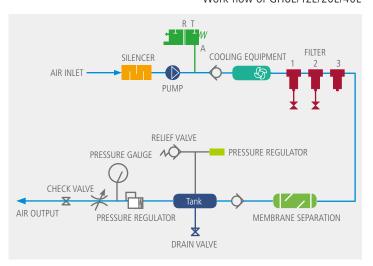
Purified Air System



Pumps characteristics curve between pressure and flow rate



Work flow of GH6L/12L/20L/40L



Specifications

Model	GH6L	GH12L	GH20L	GH40L	
Order No.	16706000-22	16712000-22	16720000-22	16740000-22	
Max. Airflow (L/min@7bar)	6	12	20	40	
Max. Pressure (bar)	8.5	8.5	9.5	9.5	
Pressure adjustment range (bar)	0~8.5	0~8.5	0~9.5	0~9.5	
Power(W)	400	400	600	600	
Connection (mm)	6mm quick connector or G1/4 Male		6mm quick connector or G1/4 Male		
Air tank (L)	5	8	20	40	
Weight(kg)	35	40	59	72	
Noise (dB)	57	57	63	63	
Dimension L \times W \times H (mm)	550 × 220 × 450	550 × 300 × 560	640 × 420 × 550	640 × 470 × 720	
Filter type	Model I Triple filter	Model I Triple filter	Model II Triple filter	Model II Triple filter	
Running type	Switch: auto stop, start at 7.5bar an	d stop at 8.5bar.	Switch: auto stop, start at 7.5bar and stop at 9.5bar.		
safety valve	Release the air pressure automatically when the pressure over 10bar in the air tank				

Purified Air System













Features

Highest air quality

- > GH series has equipped with a condenser, a triple filtration device, and an efficient dryer, to ensure the filtration accuracy of the air and the filtration of water vapor. The particles with a diameter of 0.01 um can be filtered, and the dew point of output gas can reach to -15°C.
- > Use of high-quality stainless steel internal tank to avoid corrosion and solid particles in the tank for a long period of time, to ensure the purity of the output gas
- > Purified air system is suitable for supplying nitrogen generators and zero air generators.

Environmentally friendly

We deliver purified air and create less waste compared to oil lubricated compressors. You'll need less oil and filter elements to dispose of after maintenance

Safety

- > The inside of the motor is equipped with a temperature protection switch. When the internal temperature is too high, it will stop automatically, and it will auto start after cool down.
- > The internal tank is equipped with a relief valve. If the equipment reaches the maximum pressure, the relief valve will open automatically to prevent overload and overpressure
- > GH series is equipped with digital pressure switches, start and stop can be set according to the customer's needs. If the pressure switch reaches the set pressure, the motor will stop running. If it exceeds the pressure setting, the pressure switch will display the alarm.
- > Maintenance and safety signs are printed on the casing of the Purified air system, to ensure the accurate operation of the unit and avoid damage caused by improper operation.

Quality Assured

- > The maximum working pressure can reach 8.5 or 9.5 bar, and it can be adjusted continuously. It is suitable for use in the case of continuous work, and guarantees the output of large flow under the maximum pressure.
- > Adjustable output pressure, set the pressure to make the motor turn off. This function can extend the service life and maintenance cycle of the unit.
- > With high precision display guage to ensure that the pressure gauge reading is stable and shows accurate actual pressure values.
- > Direct drive transmission, without belt, further reducing vibration and noise

Smart AIR Solutions

- > Compact design, GH6L and computer case are similar in size
- $\,>\,$ The air inlet is equipped with filter, to filter dust particles and reduce the noise
- > The inside of the unit is equipped with shockproof pads and soundproof cotton to reduce the vibration and noise, and reduce the damage caused by mechanical vibration to unit

Lower operating cost

Our innovation has resulted in some of the most energy efficient products in the market, keeping energy costs low.



Accessories

Pressure gauge

Order No.	Name	Description
WND3010	Pressure gauge	0~16bar, G1/8 connection, Ø40mm



Buffer vessel

Order No.	Name	Description
CQG010	Buffer vessel	10L, Ø220 × 300mm, Stainless steel, Horizontal, 8mm quick connector or G1/4 Male
CQG020	Buffer vessel	20L, Ø250 $ imes$ 440mm, Stainless steel, Horizontal, 8mm quick connector or G1/4 Male
CQG030	Buffer vessel	30L, \emptyset 300 $ imes$ 460mm, Stainless steel, Horizontal, 8mm quick connector or G1/4 Male
CQG050	Buffer vessel	50L, Ø350 $ imes$ 700mm, Stainless steel, Vertical, 8mm quick connector or G1/4 Male
CQG100	Buffer vessel	100L, Ø400 × 1100mm, Stainless steel, Vertical, 8mm quick connector or G1/4 Male
CQG200	Buffer vessel	200L, Ø500 × 1230mm, Stainless steel, Vertical, 8mm quick connector or G1/4 Male
CQG300	Buffer vessel	300L, Ø550 × 1530mm, Stainless steel, Vertical, 8mm quick connector or G1/4 Male

Different material and size of buffer vessel can be customized. The pressure up to 10 bar. Included safety valves, pressure gauges, drainage valves, exhaust ball valves.



PU pressure tubing

Order No.	Name	Description
WND30036	PU pressure tubing	6mm, quick connection, up to 10bar
WND30035	PU pressure tubing	8mm, quick connection, up to 10bar
WND30034	PU pressure tubing	10mm, quick connection, up to 10bar
WND30063	PU pressure tubing	12mm, quick connection, up to 10bar
WND30064	PU pressure tubing	14mm, quick connection, up to 10bar

Different size of pressure tubing can be customized



Quick connector

Order No.	Name	Description
P440031	Quick connector	6~8mm, quick connection
P440032	Quick connector	8~10mm, quick connection
P440033	Quick connector	10~12mm, quick connection
P440034	Quick connector	12~14mm, quick connection
WND3011	Quick connector	6mm,PE three-way quick connection
WND30S0010	Quick connector	8mm, PE three-way quick connection
WND30017	Quick connector	10mm, PE three-way quick connection
WND3035	Quick connector	6mm,PY three-way quick connection
WND30018	Quick connector	8mm, PY three-way quick connection
WND30S0012	Quick connector	10mm, PY three-way quick connection



Pressure reducing valve

Order No.	Name	Description
WND30009	Pressure reducing valve	$0.05\sim0.7$ Mpa, G1/4 inlet, G1/8 \times 1 outlet, G1/4 \times 2 outlet
GH40L002	Pressure reducing valve	0.05~0.85Mpa, G1/4 inlet, G1/4 × 3 outlet



Air Filter and Separator

,	ia separator	
Order No.	Name	Description
WND3001	Air filter	Model I, G1/4 connection, 5μm, air flow rate <200L/min, Automatic drain, up to 10 bar
WND3002	Oil mist separator	Model I, G1/4 connection, 0.3μm, air flow rate <200L/min, Automatic drain, up to 10 bar
WND3003	Microfog separator	Model I, G1/4 connection, 0.01µm, air flow rate <200L/min, up to 10 bar
WND30123	Triple filter	Included WND3001, WND3002 and WND3003
WND30005	Air filter	Model II, G1/4 connection, 5µm, air flow rate <450L/min, Automatic drain, up to 10 bar
WND30006	Oil mist separator	Model II, G1/4 connection, 0.3μm, air flow rate <450L/min, Automatic drain, up to 10 bar
WND30007	Microfog separator	Model II, G1/4 connection, 0.01μm, air flow rate <450L/min, up to 10 bar
WND30567	Triple filter	Included WND30005, WND30006 and WND30007





Filter cartridge

Order No.	Name	Description
WND3001-01	Filter cartridge	5μm
WND3002-01	Filter cartridge	0.3µm
WND3003-01	Filter cartridge	0.01µm
WND30005-01	Filter cartridge	5μm
WND30006-01	Filter cartridge	0.3µm
WND30007-01	Filter cartridge	0.01µm

Recommended to replace it once a year and shorten it according to the air quality of inlet.



Installtion kits ,when GH series provides gas to two system

Order No.	Purified air system	External system 1	External system 2
	'	GC Zero Air Generator	
WND12201	GH	or	N2 TOWER plus series
		Hydrogen and air generator	
		GC Zero Air Generator	GC Zero Air Generator
		or	or
WND12202	GH	Hydrogen and air generator	Hydrogen and air generator
		or	or
		GT Ultra-Zero Air Generator	GT Ultra-Zero Air Generator
WND12203	GH	N2 TOWER plus series	N2 TOWER plus series



SS-Tubing / adapter / Valve / Connectors, etc

Order No.	Description
DB-2-tube	1/8" SS tubing, 1meter, uncut.
DB-4-tube	1/4" SS tubing , 1meter, uncut.
DB-200-6	2 Adapters 1/8" to 1/8"
DB-400-6	2 Adapters 1/4" to 1/4"
DB-400-6-2	2 Adapters 1/4" to 1/8"
DB-200-9	1/8" 2 Elbow fittings 90°
DB-400-9	1/8" 2 Elbow fittings 90°
DB-200-3	1/8" T-connector
DB-400-3	1/4" T-connector
DB-41GS2	1/8" Shut-off valve
DB-43GS4	1/4" Shut-off valve
DB-2C-1	1/8" Non-return valve, Open pressure 1 pisg (0.07bar)
DB-4C-1	1/4" Non-return valve, Open pressure 1 pisg (0.07bar)
DB-200-NFSET	1/8" screw cap, includes seals (5 pieces)
DB-400-NFSET	1/4" screw cap, includes seals (5 pieces)
DB-tools-set	Tubing tools set

COPPER-Tubing / adapter / Valve / Connectors,etc

Order No.	Description	
DC-2-tube	1/8" copper tubing, 1meter, uncut.	
DC-4-tube	1/4" copper tubing , 1meter, uncut.	
DC-200-6	2 Adapters 1/8" to 1/8"	
DC-400-6	2 Adapters 1/4" to 1/4"	
DC-400-6-2	2 Adapters 1/4" to 1/8"	
DC-200-9	1/8" 2 Elbow fittings 90°	
DC-400-9	1/8" 2 Elbow fittings 90°	
DC-200-3	1/8" T-connector	
DC-400-3	1/4" T-connector	
DC-41GS2	1/8" Shut-off valve	
DC-43GS4	1/4" Shut-off valve	
DC-2C-1	1/8" Non-return valve, Open pressure 1 pisg (0.07bar)	
DC-4C-1	1/4" Non-return valve, Open pressure 1 pisg (0.07bar)	
DC-200-NFSET	1/8" screw cap, includes seals (5 pieces)	
DC-400-NFSET	1/4" screw cap, includes seals (5 pieces)	
DC-tools-set	Tubing tools set	