



# H<sub>2</sub> + N<sub>2</sub> + AIR

## APPLICATION

- ✓ **Combustion gases for FID**
- ✓ **Carries gases for GC**

## Description

Synspec supplies the **GCSTATION ULTRA RC** product line of **High Purity Hydrogen & Zero Air & Nitrogen generators with compressor** to supply independently all gases necessary to aliment GC and GC/MS, close to the consumer in 2 elegant 19" Rack casing with full color display and touchscreen.

The **GCSTATION ULTRA RC** is composed of an High purity Hydrogen generator and Zero Air and Nitrogen generators and an AIR compressor system.

Based on the field proven Solid Polymer Electrolyte (PEM) cell technology, pure Hydrogen is produced at low pressure from electricity and high quality distilled water. After production, H<sub>2</sub> is dried by a passive dryer. It is available 24/7 with constant purity >99.9999%. Output pressure is regulated electronically and could be set from 0.5 to 7 bar. This process can be started on demand and does not require any caustic solution.

Compressed AIR passes through a Pressure Swing Adsorption (PSA) module to dry and filter it from pollutant gases. Based on the same concept, Nitrogen is then extracted from a set of filters filled up with CMS.

Both Output pressures are regulated electronically from 0.5 to 5 bar.

Due to the software being focused on safety, automatic regulation and reliable communications, the **GCSTATION ULTRA RC** is easy to install, reliable, safe and pleasant to operate.

## Benefits

- ✓ Reduces in operation costs. Return on investment within 15 months.
- ✓ Improves resolution and detection limit versus Helium only usage. Provides High pressure stability.
- ✓ H<sub>2</sub>, N<sub>2</sub> and Zero Air available 24/7 at constant purity. No contamination.
- ✓ Independent source of Hydrogen, N<sub>2</sub> and Zero Air that does not require any piping and can be easily moved around the laboratory. Remote control from PC, I-phone and I-pad
- ✓ Low noise compressor < 55dB(A)).
- ✓ Very safe operation, internal leak-test, automatic shut-down, over-pressure valve, current and voltage limits.
- ✓ No handling and storage of cumbersome gas cylinders. No cylinder rental fee.
- ✓ Extended autonomy with 5L water tank.
- ✓ Long life compressor with power economy function.

## Specifications

<b>MODEL</b>	<b>GCSTATION ULTRA RC-CAT-70/2000/70;</b>
<b>OUTFLOW CAPACITIES @ 1013/20°C</b>	GCSTATION ULTRA RC-CAT-70/2000/70: 70 Nml/ min H <sub>2</sub> & N <sub>2</sub> , 2000 Nml/min AIR
<b>H2 PURITY</b>	>99.9999% (maximum HC content : 0.05ppm), Dew point -75°C
<b>AIR PURITY</b>	< 10ppm H <sub>2</sub> O (<-60°C DP); < 50 ppb HC ; < 50 ppb CO and CH <sub>4</sub> ; Particulates <0.1µm
<b>N2 PURITY</b>	> 99.9999% ; < -75°C dew point, < 1 ppm H <sub>2</sub> O, particulates <0.1µm; <0.05ppm HC-CH <sub>4</sub>
<b>OUTLET PRESSURES</b>	H <sub>2</sub> : from 0.5 to 7 bar (7 to 100 psig), adjustable by software. AIR& N <sub>2</sub> : from 0.5 to 5 bar (7 to 70 psig), adjustable by software.
<b>WATER QUALITY</b>	High purity deionised+filtered water. TOC free.
<b>WATER CAPACITY</b>	5L external tank. Generates about 6000L Hydrogen
<b>COMPRESSED AIR</b>	On Board compressor
<b>SAFETY</b>	Low H <sub>2</sub> stored volume; over pressure valve; internal leak test; automatic shut down; maximum current limit, water quality, over temperature.
<b>SOUND PRESSURE</b>	< 59 dB(A), measured at 1m
<b>MANUAL CONTROL</b>	Through a 4.3" TFT-LCD color display with touch screen, located on the front panel. Display of major parameters, functioning status and alarms. Intuitive navigation to functions by menus and sub menus.
<b>REMOTE CONTROL, COMMUNICATIONS</b>	<ul style="list-style-type: none"> <li>✓ USB. RS485 (Mod-Bus) or Display.</li> <li>✓ Trough Ethernet 10/100 network</li> <li>✓ Trough WLAN network, with PC, I-Phone, I-Pad (option)</li> <li>✓ Log book download by USB.</li> </ul>
<b>OUTLET FITTINGS</b>	Stainless steel 1/8" OD compression
<b>POWER SUPPLY</b>	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
<b>POWER CONSUMPTION ( MAX AT FULL FLOW)</b>	GCSTATION ULTRA RC-CAT-70/2000/70 : maximum 600W
<b>DIMENSIONS</b>	W=483mm/19ins, H=265mm/10.5ins (2x3U), D=520mm/21ins
<b>NET WEIGHT</b>	GCSTATION ULTRA RC-CAT-70/2000/70: 60 Kg
<b>CERTIFICATION</b>	CE

## Ordering Numbers

Model	Article #
GCSTATION60RC-70/2000/70	8054
GCSTATION with other capacities	On demand

# SYNSPEC

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