



## Sonimix 3057 Self Regenerable Zero Air Generator

### Description

The **self regenerable zero air generator Sonimix 3057** is the ideal companion of the sonimix machines. It allows to aliment in carrier gas the calibration systems + GPT and gas dividers without the need of expensive and cumbersome zero air pressurized cylinders.

The functions of the **Sonimix 3057** are to filter, dry and clean the ambient air of pollutants such as HC, CH<sub>4</sub>, CO; NO, NO<sub>2</sub>, O<sub>3</sub> and SO<sub>2</sub>.

The sonimix 3052/57-5NI/min and 10 NI/min have an internal compressor included. The sonimix 3052/57-30 NI/min need an external compressed air source (min 6 bars).



### Functioning principle:

The ambient air is pressurised up to 10 bar (140 psi) with an internal compressor or external compressed air sourced. It goes through a dust filter with automatic purge. The drying process is achieved by a self regenerable molecular sieve filter.

The dry air is processed through different modules : the first scrubber eliminate the NO, the second one is an activated charcoal scrubber to remove the remanent HCnm, SO<sub>2</sub>, NO<sub>2</sub>, O<sub>3</sub>... and the third one is an hot catalysis system which remove the CH<sub>4</sub> and the CO. The purified air goes to a pressure regulator and is available at the outlet.

The regeneration process of the scrubbers is reached by using a pair of filters which are regenerated in alternance with reverse gas flow and a pressure swing system.

All the control parameters such as regeneration phases, low input pressure, temperature of the oven are **controlled and monitored by the included microprocessor**.

- Low maintenance**
- Self regenerable**
- No cylinders**

### Applications



The Sonimix 3052/3057 can be used to supply:

- Combustion Air for FID
- Dried Air for ozone generators and NO<sub>x</sub> analysers
- Zero Air for all gas analysers
- Carrier gas to aliment the sonimix calibrators or gas diluters

## Specifications

Flow generated (at atmospheric conditions)	0 to 5 NI/min / 0 to 10 NI/min / 0 to 30 NI/min : Need compressed Air quality ISO8573-1:2010 Class 1.2.1	
Outlet pressure :	adjustable between 1 and 3.5 bar	
Remaining level of pollutants :	SO <sub>2</sub> & O <sub>3</sub>	< 1 µg/m <sup>3</sup> (0.5 ppb)
	NO & NO <sub>2</sub>	< 1 µg/m <sup>3</sup> (0.5 ppb)
	HC <sub>nm</sub>	< 0.02mg/m <sup>3</sup> (50 ppb)
	HC <sub>m</sub>	< 0.02mg/m <sup>3</sup> (50 ppb) if catalysis oven installed
	BTEX	< 1 ppb
	CO	< 0.06 mg/m <sup>3</sup> (50 ppb) if catalysis oven or cold filter installed
	CO <sub>2</sub>	< 10 ppm
Remaining moisture level :	H <sub>2</sub> O	< 100 ppm (-40°C DP)
Functioning temperature:	5 to 40 °C	
Stabilisation time after the start of the compressor :	< 10 min ( <15 min if catalysis oven installed)	
Life time of the scrubbers :	for a daily use of 1 hour, an annual preventive maintenance is suggested	
Command mode:	with an ON/OFF switch placed at the back	
Electrical consumption :	220 VAC/ 50 W (200 W if catalysis oven installed)	
Gas connections :	with quick connect and double ring system	
Dimensions of casing :	19 inches, 3 U, 50 cm deep or portable casing as option	

## Options – Accessories – Spare parts

### Models:

6800 10 000	Sx 3052/3057 5NI/min
6800 10 001	Sx 3052/3057 10NI/min
6800 10 002	Sx 3052/3057 30NI/min

### Options:

6800 10 005	Internal compressor 5NI/min
6800 10 006	Internal compressor 10 NI/min
6800 08 017	Catalyser oven for CO & CH <sub>4</sub> for 5NI/min and 10 NI/min
6800 08 018	Catalyser oven for CO & CH <sub>4</sub> for 5NI/min and 10 NI/min
6800 10 004	Cold Filter for CO
6800 10 019	Second outflow regulated line
6800 10 000	Portable casing
6700 13 867	Voltage 230V / 50/60 Hz
6700 13 868	Voltage 115V / 60 Hz
6700 13 869	Voltage 100V / 60 Hz

### Consumables:

6700 13 870.1	Set of the consumables filters for the annual maintenance (5 & 10 NI/min)
6700 13 871	Set of the consumables filters for the annual maintenance (30 NI/min)
6700 13 872	Kit of diaphragm and valves for the compressor
3742 49 001	Filter for automatic purge V5
6704 06 176	Refill for CO filter



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