

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, CH₄, CO; NO, NO₂, O₃ and SO₂.

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, SO₂, NO₂, O₃... and the third one is an hot catalysis system which remove the CH₄ 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_x 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 ₂ & O ₃ | < 1 µg/m ³ (0.5 ppb) |
| | NO & NO ₂ | < 1 µg/m ³ (0.5 ppb) |
| | HCnm | < 0.02mg/m ³ (50 ppb) |
| | HCm | < 0.02mg/m ³ (50 ppb) if catalysis oven installed |
| | BTEX | < 1 ppb |
| | CO | < 0.06 mg/m ³ (50 ppb) if catalysis oven or cold filter installed |
| | CO ₂ | < 10 ppm |
| Remaining moisture level : | H ₂ 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 ₄ for 5NI/min and 10 NI/min |
| 6800 08 018 | Catalyser oven for CO & CH ₄ 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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