

Thermo Environmental Instruments

MODEL 111

Zero Air Supply

The Thermo Environmental *Model 111* Zero Air Supply is a convenient system for the generation of pollutant free "zero" gas for NO - NO_x - O_3 - SO_2 - CO and hydrocarbon requirements. The *Model 111* uses an external compressor; the pressure regulators, chemical scrubbers, reactor and temperature controller are all contained in a single convenient case.

The *Model 111* has been designed for any application where pollutant free levels of NO - NO_x - O_3 - SO_2 - CO and hydrocarbons are required, with flows up to 20 liters per minute at pressure of 30 psi.



MODEL 111 SPECIFICATIONS

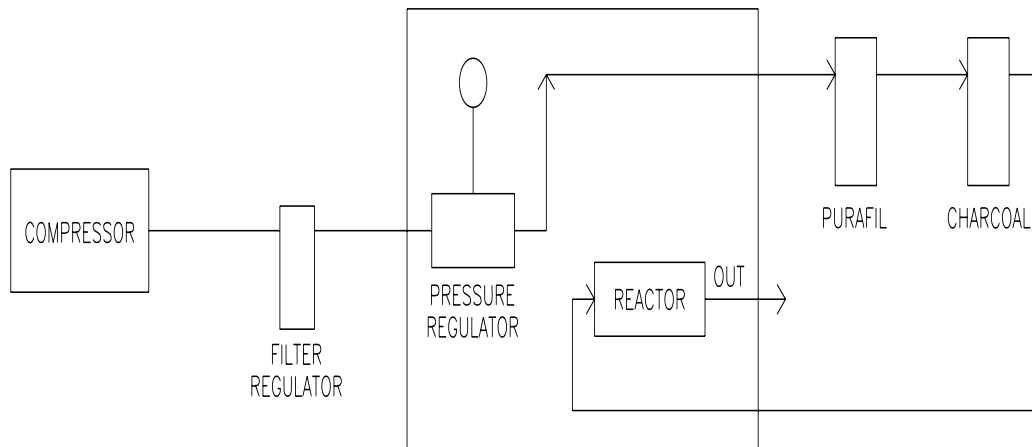


OPTIONS

- 001 Co-Reactor
- 002 Rack Mount Slides
- 005 20 LPM Compressor

Pressure	10 - 30 PSI
Standard Flow Rate	0 - 10 L/min.
Water Vapor	0°C Dew Point
Dimensions	12.2" (H) x 19" (W) x 15.5" (D) Rack Mounting Standard
Weight	20 lbs.
Compressor Unit/Dimensions (separate)	17" (H) x 12" (W) x 20" (D)
Weight	40 lbs.
Flow Rate	0 - 10 LPM STD 0 - 20 LPM (optional)

Model 111 FLOW SCHEME



As illustrated in the above diagram, room air enters the compressor, where it is raised to a pressure of 80-90 psi. The output of the compressor contains a coalescing filter and a pressure regulator where the pressure is reduced to 70 psig.

Inside the main case of the *Model 111* the compressed air is further reduced to the final desired pressure (10 - 30 psi). The air then goes into the reactor

where it is heated to 350°C over a catalytic surface which converts CO to CO₂ and hydrocarbons including methane to water and CO₂. The air then passes into a column of Purafil (potassium permanganate on alumina) which oxidizes NO to NO₂. Finally, the air passes through a column of activated charcoal which removes NO₂, SO₂, O₂ and hydrocarbons. This results in a pollutant free stream of air.

For Price and Delivery Information, Contact:

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