

NBS kompakt

Zero-Air Generator

The NBS kompakt is an excellent source of clean dry air for:

- Zero-gas for the calibration of precision gas analyzers
- Dilution gas for calibrators
- Burner Air for FID analyzers



Application

- Immission measurement
- Emission measurement
- Calibration laboratory
- Analytical laboratory

Advantage

- Self contained
- Low maintenance
- Elimination of gas bottles (cost reduction due to logistics, bottle rental)
- Low noise emission (suitable for manned working places)
- Low energy consumption
- Refill filter cartridge
- High quality modules from analytical and industrial applications
- Display of important parameters
- High quality zero-gas
- Low space consumption of only 6 U, 19"

Principle of Operation

Ambient air is drawn through a particulate filter by a piston air compressor. The air is compressed to 7,5 bar. Excess heat is removed via a cooling coil.

A coalescing filter removes excess moisture, oil and particulates. Downstream a permeation dryer reduces the dew point by 35K.

The dried compressed air is stored in a pressure tank. The pressure is controlled via a pressure sensor. The compressor is switched off in stand-by modus.

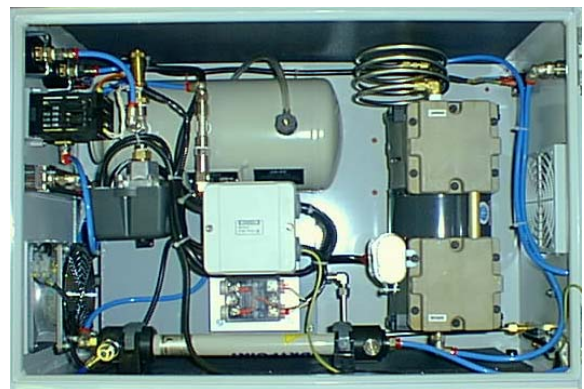
Gaseous pollutants are removed by a platinum catalyst followed by Charcoal and Purafill filters.

The maintenance cycle of the filters depends on the zero-air consumption and is at least 3 months.

All maintenance-intensive modules are easy to reach. Maintenance does not require any tools.

The outlet pressure of the zero-air is adjustable over a pressure range from 1 to 6 bar

Initial pressure in the vessel, catalyst temperature and the zero-air flow are displayed on the front panel



Technical Design

The system consists of 2 units:

- Compressed air unit including dryer and catalyst
- Filter unit

The compressed air unit is enclosed in a galvanized powder-coated 19" steel chassis (6U). Excess heat is removed by a filter-fan (ball-bearings).

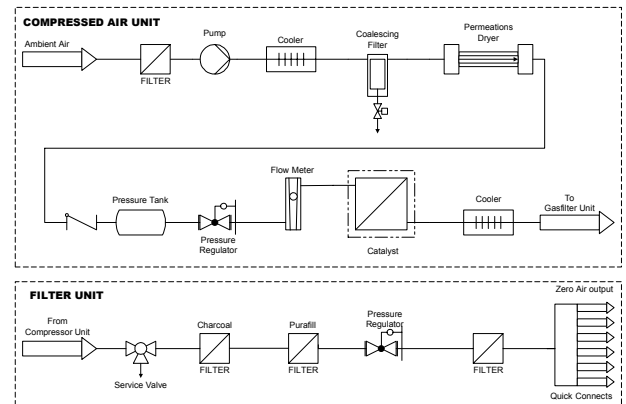
Wearing parts of the compressor are modules that can be exchanged simply and economically.

The permeation dryer and the catalyst are maintenance-free. The high-grade steel catalyst is enclosed in a thermally isolated housing. Condensate collected in the coalescing filter is automatically discharged by a solenoid valve.



The filter unit consists of 2 refillable filter cartridges, a service valve, an adjustable pressure control valve with particle filter and a gas distribution block with 6 quick-lock connectors.

All components are fixed to a mounting plate for 19"- or wall assembly.



Technical Data

Output: 8 l_N/min

Outlet pressure: 1-6 bar adjustable

relative moisture: < 5%

residual SO₂ < 1 ppb

residual NO/NO₂ < 1 ppb

residual O₃ < 1 ppb

residual CO < 10 ppb

residual C_mH_n < 10 ppb

residual BTX < 1ppb

Compressed air Unit

- Oil-less Piston Air Compressor
- Coalescing filter with automatic condensate drain
- Pressure tank (4l) with safety valve
- Power requirements 230V/50Hz
Stand-by 70VA, maximum 550VA
- Catalyst-Temp. 450°C
- 19" modular chassis 6 U
- BxTxH = 482x265x700 mm
- Weight 36 kg

Filter Unit

- Mounting plate 150x90x485 mm for 19"- or wall assembly
- Filter volume 300ml
- Filter components: charcoal, Purafil
- Outlet: 6 Quick-lock connectors for zero-gas, burner-air