

AG 2500

Aerosol generator



At a glance

- Volume flow: 0 - 2500 l/ h
- Operating pressure: max. 8 bar
- Power supply: 230 V
- Weight: app. 5.2 Kg
- Filling quantity: max. 500 ml
- Dimensions [cm]: L 30 x W 20 x H 10
- Counter-pressure: max. 10 kPa (100 mbar)
- Particles: Di-2-ethylhexyl-Sebacate (DEHS), Dioctylphthalate (DOP), Paraffin, Latex, Polyalphaolefins (PAO, Emery 3004)
- Made in Germany by KM OptoElektronik GmbH

The AG 2500 aerosol generator has been designed for generating test aerosols with defined properties. Compared to the standard device AG 250, the AG 2500 aerosol generator is working with a lower volume flow which has a positive effect on the larger reservoir of aerosol substance. Thus ensures a high constancy of particle size distribution and particle concentration. By using the VD 100 dilution system combined with the AG 2500 and a particle counter, the control of clean rooms, laminar flow boxes and safety work benches is enabled

Applications

With the AG 2500 aerosol generator you are realizing the control of:

- Clean rooms pursuant to VDI 2083/ DIN1946
- Laminar flow boxes
- Cytostatic safety cabinets pursuant to DIN 12980
- Microbiological safety cabinets pursuant to DIN 12950
- Calibration standard: latex aerosols

Advantages

- User friendly
- Compact and robust design
- Low maintenance
- Variable concentration
- Very high particle generation
- Very high reproducibility of the generated aerosols
- Stainless steel housing

Features and application

The compact and very robust AG 2500 aerosol generator is operated by pressurized air. The quick release fastener is installed at the front; besides the compressed air supply, all pressurized parts are arranged inside the housing. The applied pressure can be adjusted in the range of 0 - 8 bar by the pressure reducer and be read on the manometer. The manometer shows the actual applied pressure on the atomizer as well as alterations at the pressure reducer and possibly occurring pressure losses at the filter. The atomizer can be filled either by the aerosol outlet or by opening the filling plug. The particle concentration can be regulated by flow meter. Centrepiece of the AG 2500 is a binary nozzle made of stainless steel with compressed air supply working with the injector principle and a free accessible container for the liquids to be atomized. The binary nozzle is linked with an impact separator whose function is to feedback large droplets immediately to the atomizer jar and thus basically defines the generated particle size distribution. The block diagram (figure 1) shows the equipment components and arrangement thereof.

Principal application fields of the AG 2500 are filter tests, acceptance- and control measurements of clean rooms, laminar flow boxes and safety work benches.

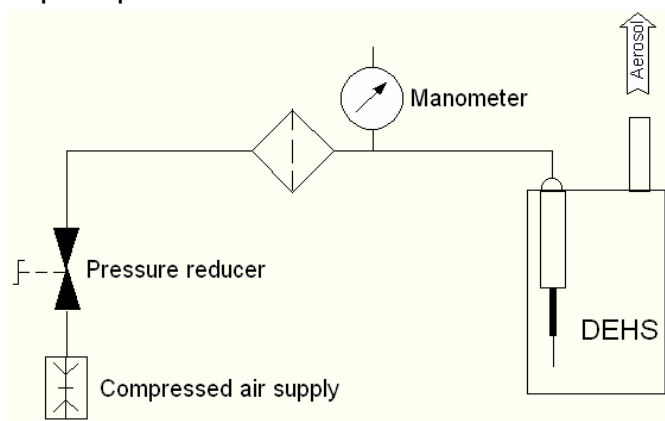


Figure 1: principle

Pressure conditions at the binary nozzle can be varied by the compressed air supply (inlet pressure). With increasing pressure the amount of drawn liquid is also increasing and thus guarantees a higher particle production rate. However, even with a reduced particle production rate the reproducibility and dosing constancy is guaranteed.

Standard Application

