

First compact, continuously cleaned drum filter unit with vertical air flow

The LTG Aktiengesellschaft, based in Stuttgart, Germany and one of the leading companies in the filtration technology, presents the first compact, continuously cleaned LTG drum filter unit with vertical air flow. The compact filter unit consists of a fan module, a pre-filter module and a fine filter module, the LTG UpflowDrum Filter type UDF. It is particularly suitable for fibrous dust.

Contrary to traditional drum filters, the dust-polluted air passes the UDF vertically through the filter drums. This allows keeping the floor space required for the unit very small. The dusty air passes through the filter drums from the inside, dust particles are collected on the inside where they are continuously removed.

The discharged air is clean, i. e. the filter may be operated directly on the production floor. The outside of the filter and any drive and control components are located on the clean air side and, thus, are protected against any dirt. This ensures low maintenance requirements and high reliability.

Cleaning is done through continuously rotating nozzles allowing for recycling or disposal of nearly 100% of the collected material. Continuous regeneration also provides a steady pressure drop within the system. Dust concentrations inside the filter are minimised with a positive effect on the zone division in explosion hazard areas contrary to traditional systems.

The modules

Fan module: The air flow is generated by an integrated, single suction high-performance radial fan. The integration of the fan avoids lossy deflections and piping, it creates an energy-efficient, and thus cost-saving system.

Prefilter module: The pre-separation of coarse particles is done mechanical through a separator with continuous cleaning. The coarse particles themselves are continuously removed. This kind of coarse filtration without rotating parts and without filter media is wearless and low-maintenance.

Fine filter module: One fine filter module comprises of filter drums continuously

cleaned by rotating nozzles. Multiple modules may be put together so that any output requirement can be met. "Splitting" of large filter units in smaller modules significantly eases handling and transport, also on site.

De-dusting the room air and machine exhaust air is essential in many industries to ensure trouble free production processes, a high product quality, maintain a good health of the staff, and to comply with local regulations. Dusty and fiber-type abrasions such as the ones created when processing wood and paper have to be removed before they settle on production machines and in the room. Separation of these fibrous dusts from the air flow is exactly what these filters are for.

LTG filtration technology features high capacity with compact design, constant availability and low-maintenance operation. The company offers key components for all process levels of filtration technology – from collecting and conveying to compacting – as well as for humidification technology. **sha**