Compact, powerful and quiet

Extraction systems with compact dust extractors up to 40,000 m³/h

- **Quiet operation**
  The noise protection is particularly effective so the noise level reaches excellent values. Additional external silencers are generally not required.

- **Effective filters and cleaning technology**
  The high degree of separation of the tested filter material used ensures a residual dust content in the return air line of <0.1 mg/m³. The compressed air cleaning system (jet pulse system) ensures effective and gentle cleaning of the filter elements at low compressed air consumption levels, thus achieving a long service life.

- **Modern design, compact unit**
  The design and the structural design in conjunction with the use of the special filter elements result in even more compact casing dimensions so extremely small set-up areas and lower clearance heights are required.

- **Tested safety**
  The SPÄNEX compact dust extractors have been tested by the BGHM trade association and have been awarded the DGUV test certificate (H3) and the GS mark. They therefore meet all occupational safety and general safety requirements.

- **Planned pipeline system**
  The pipeline system is planned and designed so the required extraction volume flows are available on all machines that are emptied individually or together, whereby gate valves are installed in the connection lines to the intake manifolds which are opened and closed automatically by the controller. At the same time, the controller ensures that the transport speeds of chips and dust are maintained and there is no material build-up in the pipeline system.

- **Disposal alternatives**
  The extracted chips and dusts are temporarily stored in the dust extractor tanks and transferred via the outlets and rotary valves (decoupling component) to a screw conveyor or a pneumatic transport system, which transports the material to a container, silo or a larger tank under which a briquetting press is usually installed. The briquetting press output is adjusted to the material accumulation; SPÄNEX manufactures machines with a chip throughput of 0.5 to 2 m³/h.

- **Intelligent control technology**
  The electrical circuit function package automatically ensures the operation of the extraction system is regulated and reliable. Optionally, the controls can be equipped with a remote maintenance module so the functionality of the system can be checked by the service department upon request of the customer.

SPÄNEX your partner

Perfect down to the last detail

- In-house sheet processing and own mechanical engineering

The components of the dust extractors, filter units and the briquetting presses are manufactured using the most modern machines. Due to the production depth, our high quality demands and those of our customers are reliably ensured.

- Accessories

Only accessories from leading manufacturers that meet our quality requirements are used. The experience from delivering more than 1,000 filter systems and more than 3,000 briquetting presses has proven that this is the right concept.

Practical examples

SPÄNEX GmbH
Luft-, Energie- und Umwelttechnik
Otto-Brenner-Straße 6
D-37170 Uslar
Phone: +49 (0) 5571 304-0
Fax: +49 (0) 5571 304-111
info@spaenex.de
www.spaenex.de

safe ■ clean ■ efficient ■

NEW

SPÄNEX - New system concept
Dust extraction units replace stationary filter

safe ■ clean ■ efficient ■

Compact, powerful and quiet

Extraction systems with compact dust extractors up to 40,000 m³/h

With some extraction systems, in the air quantity range above 10,000 m³/h, the problem arises that the filter systems cannot be set up outside of buildings, as required by the rules, due to the local conditions.

Setting up the filter system inside is also often not possible for structural reasons.

For this reason, SPÄNEX developed a system concept based on dust extraction units which is an ideal solution, especially for such cases.

Characteristics of the new system

- **Installation**
  Depending on the required extraction volume, two, three or four dust extraction units, each with an air capacity of 10,000 m³/h, create a central extraction unit that provides an air quantity capacity of 20,000 to 40,000 m³/h.

  Image 1 shows a sample solution with four dust extraction units, set up in a battery formation, with a maximum extraction volume of 40,000 m³/h.

  Image 2 shows a stationary filter system with the same capacity, set up outside.

  The benefits of the extraction unit battery can be seen in both figures:

  - Short pipelines reduce the investment and operating costs.
  - Complicated return air ducts are not required.
  - A one-hundred percent heat recovery is achieved due to direct air return.
  - The largely turnkey delivery results in short assembly times and thus reduced assembly costs.

  Images 3 and 4 show dust extraction batteries with max. extraction volumetric flows of 20,000 and 30,000 m³/h.

- **Maximum energy efficiency**
  The compact dust extraction units from SPÄNEX are complete separation stations that consist of the inflow/filter chamber, the fan cell and the container. The fan is attached on the pure air side and equipped with a high-power flywheel so the highest degrees of efficiency are reached. Energy-efficient engines in the IE3 (optional IE4) energy efficiency class are used as a standard and the speed is regulated via frequency inverters to adjust the extraction capacity to the respective need.

Sample solutions from practice

Image 1: Air quantity capacity 40,000 m³/h

Image 2: Stationary filter system, air quantity capacity 40,000 m³/h

Image 3: Air quantity capacity 20.000 m³/h

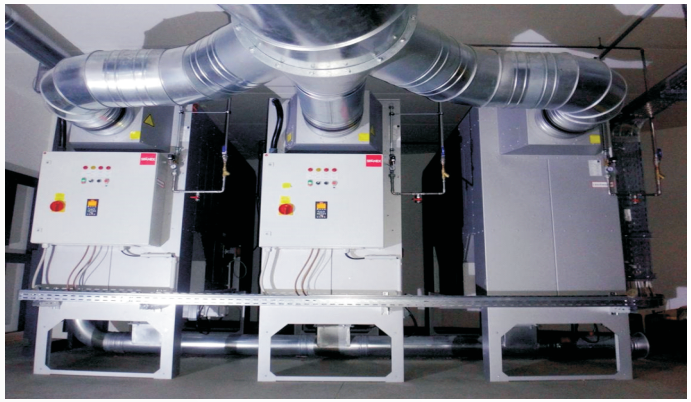

Image 3: Air quantity capacity 30.000 m³/h

Design configurations::

- automatic fan start-up
- automatic slide controlS
- fill level monitoring in the containers with
- with briquetting press or externally installed container
- automatic extinguishing with powder extinguisher
- Ignition protection system

Plus points:

- compact
  - small installation area
  - low installation height
- high suction capacity
- quiet, energy-saving operation
- speed control via frequency transformers
- automatic briquetting press start-up
- complete control system
- tested in accordance with GS-HO-07