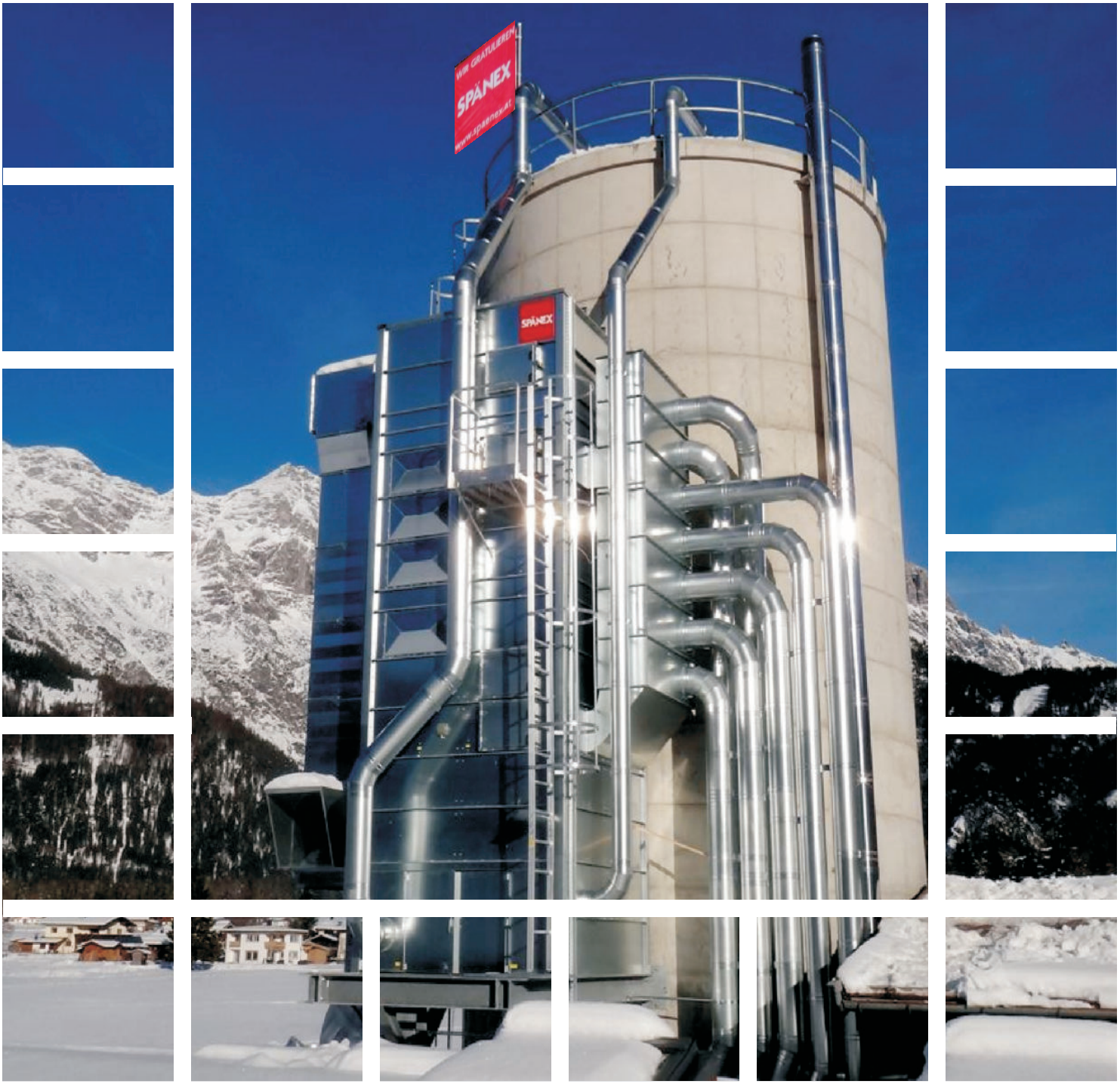
SPÄNEX



SPÄNEX compact filters

... the filter system with the compelling features!

safe ■ clean ■ efficient ■

Economical, versatile and durable

Extraction systems with SPÄNEX compact filters

SPÄNEX has been manufacturing and selling extraction and filter systems for a variety of needs in different industries for more than 60 years. Many of those systems operate in an air flow range of less than 100.000 m³/h. SPÄNEX addresses the varied customer requirements in this service segment with a modular filter system that allows our sales team to design modern, energy-saving extraction systems perfectly geared to our customers' needs.

Impressive features

- **Modular design**
  The filter units consist of four modules:
  - a soundproofed fan cell with built-in radial fan,
  - a filter cell with filter bags and cleaning device,
  - a container or hopper to collect and transfer the material, and
  - a disposal unit.

- **Compact**
  The filter tower, which comes with a built-in radial fan in the fan cell, forms a complete extraction system that offers maximum power in a very compact space.

- **Versatility**
  The modular design of our compact filter line is based on several grids that, when combined with filter hoses of various diameters and lengths, allow us to adapt the product perfectly to different customer requirements.

- **Safe design, excellent value for the money**
  Each module functions as a self-sustained unit and is made from galvanised sheet steel. Chamfered corner columns are bolted to steel profiles to create a pressure surge protected case with smooth inside walls that provides stability against collapse in high wind or heavy snow conditions. Filter cases with a fire rating of EW 90 allow the compact filters to be erected close to a building. Several case elements are manufactured in bulk, resulting in cost benefits that make the filter units an excellent value for the money.

- **Different versions**
  Our standard compact filters are designed as vacuum systems with integrated extraction fans. Depending on the operating conditions the filters may contain one or several fans. If required by the type of application, the extraction fans can also be arranged outside the filter units, either behind (vacuum system) or in front of them (pressurization system).

- **Energy-efficient high-performance fans**
  The fan cell contains a directly driven radial fan with an efficiency of more than 80% to minimize the power requirement from the start. In combination with standard drive motors with an IE 3 efficiency rating (or IE 4 as an option) this result in an exceptionally high level of efficiency.

- **High throughput**
  The flow in the compact filters has been optimized to reduce inner resistance and ensure that the external compression is high enough to meet the pressure requirements of the connected equipment and the piping system. For the same reason, the pipes are connected to the filter unit using inflow channels with advantageous hydraulic characteristics.

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- **Quiet operation**
  The standard fan cell comes with noise insulation mats to keep noise emissions low despite the high output. In most cases it is not necessary to use additional external sound absorbers.

- **Effective filters and cleaning technology**
  The high degree of separation of the BGIA-tested filter material used ensures a residual dust content in the return air line of <0.1 mg/m³. The quality and configuration of the filter material are determined based on the job definition. The same is true for the dedusting process, which offers a choice between mechanical vibration or compressed air dedusting (jet pulse system). Both methods provide effective but gentle dedusting of the filter bags, resulting in a long service life.

- **Several disposal options**
  The separated shavings and dusts, which are collected in a container or hopper, can be discharged into bins lined with plastic bags or transferred to a Big Bag, conveyor screw or pneumatic conveyor via a rotary valve. In many cases a briquette press that can adjust its output to the amount of shavings discharged is placed underneath the (buffer) container.

- **Intelligent, energy-saving control technique**
  The control system is designed to provide maximum energy savings and great operating comfort. The key elements for this are:
  - controlling the speed of the extraction fan with a frequency converter to constantly adapt the suction output to the suction needs,
  - optimized operation of the conveyor system by buffering material in the container,
  - automatic start of the briquette press depending on the amount of material discharged.

- **Pre-assembly of parts at the factory**
  Individual filter modules can be fully pre-assembled at the factory, so that they only need to be assembled and bolted together using a crane at the construction site. This results in shorter assembly times.

Possible configurations:

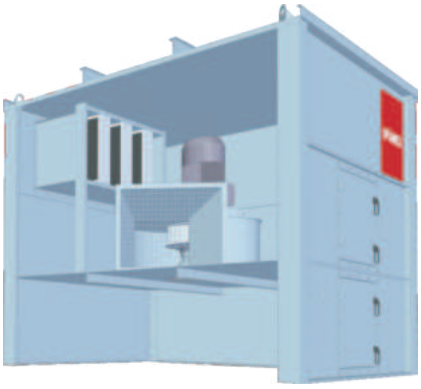
- Installation of multiple fans
- Automatic start of the fan
- Automatic slide control
- Operation via frequency converter
- Filling level monitor in the container
- Maintenance platform with ladder
- Integrated pre-filter chamber
- External noise and heat insulation

Plus points:

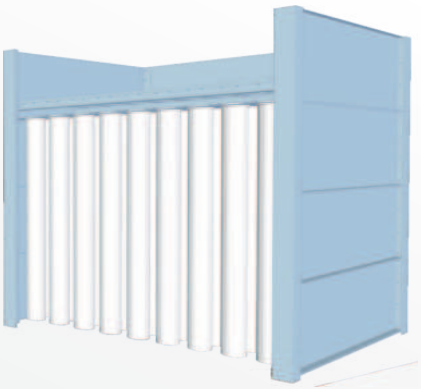
- Compact design, small set-up area
- Optimal adaptation to the requirements
- High throughput
- Quiet, energy-saving operation
- Intelligent control technology
- Multiple disposal options
- Pre-assembly of parts at the factory
- Short assembly times at the site

Compact filter modules

Fan cell



Filter cell



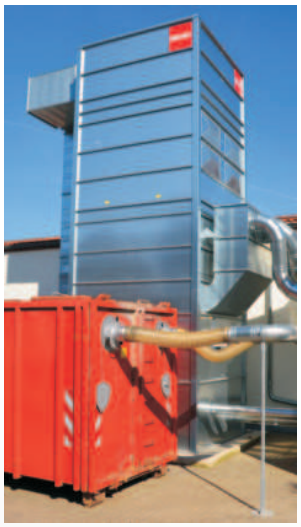
Container with discharging unit

Disposal unit

Filling bins

Big-bag

Silo conveyor system



Container conveyor system

External briquette press

Real life examples

SPÄNEX - your partner

Perfect down to the last detail

- In-house sheet metal forming, in-house circuit construction

Compact filter components are manufactured on state-of-the-art machinery. Our in-house manufacturing depth allows us to consistently meet our customers' and our own quality expectations. The circuitry and controls are also developed and manufactured in-house.

- Accessories

We only use accessory parts (vibrating and geared motors, pneumatic components, etc.) from leading manufacturers that meet our quality requirements. The experience gained from delivering several hundred compact filters has demonstrated the validity of this concept.

Consultation and service

It's a long path from planning to a finished system. In all phases, SPÄNEX is at your side with the competence and experience from the realization of several thousand projects. Systems are assembled by SPÄNEX mechanics and commissioned by our service technicians. Our service, in connection with our optional maintenance agreements, guarantees a long service life and reliable system operation.

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