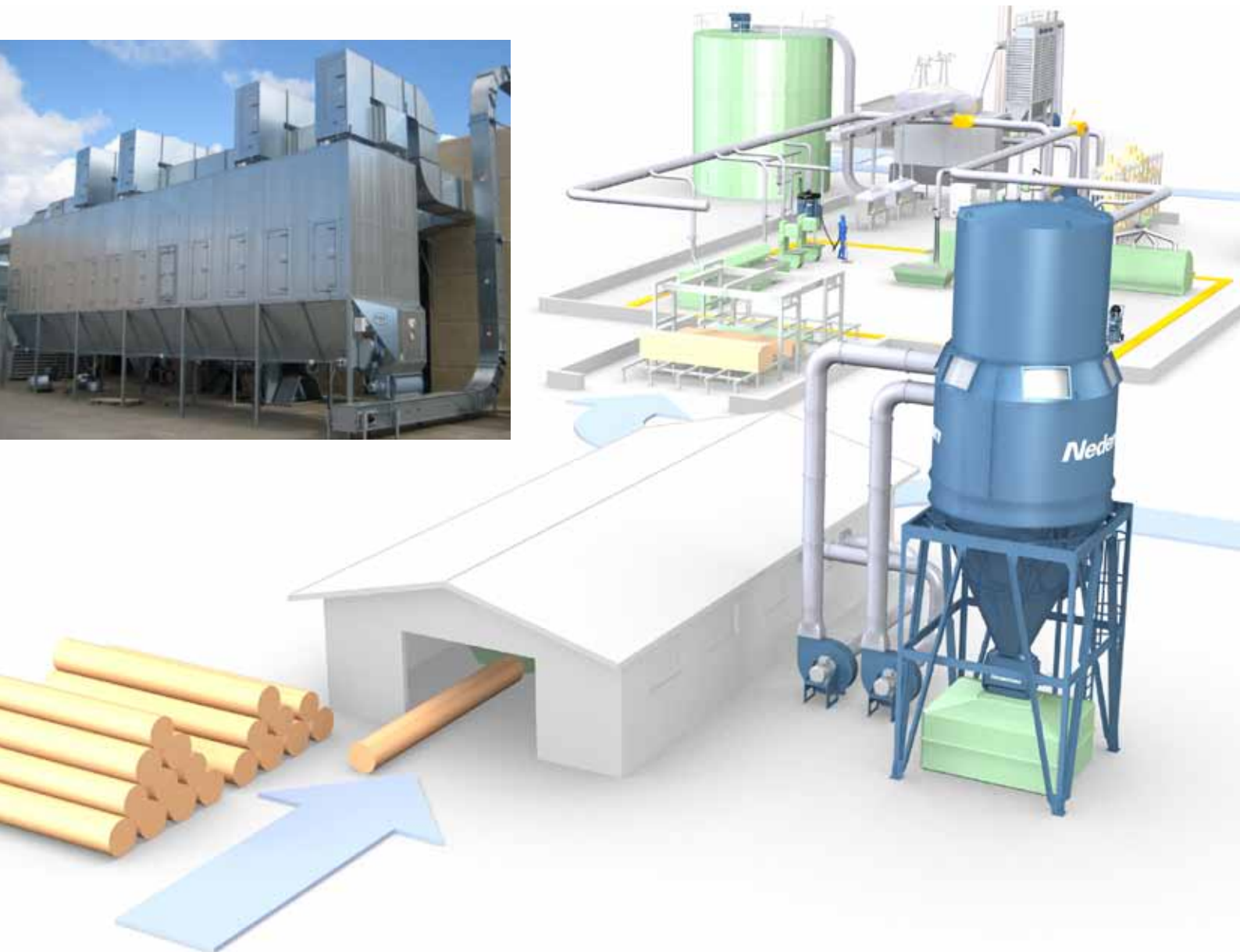


Wood waste management Complete solutions for extracting and handling dust and chips



Nederman wood waste management

Eco-efficient solutions for all stages in the wood working industry

Our solutions combine care for the environment and employee health with improvements in work efficiency and production economy. Ecologically and economically efficient.

Well designed and efficient wood waste handling installations are necessary in woodworking industry. Nederman offers expertise in all wood-based applications, ranging from centralized production plants to small carpentries.



Cyclofilter



NFS

Problems we solve for the woodworking industry

Extraction and filtration

Nederman is the world leader in industrial air filtration, with over 60 years of experience. We offer the widest range of products and solutions on the market for extraction and filtration:

- Dust and particles
- Exhaust fumes
- Solvents
- Extraction directly from machines and tools
- Combustible dust



Resource management

Turn production waste and by-products into profitable resources.

- Material transportation through vacuum solutions and / or conveying
- Storing
- Briquetting
- ATEX certified products for combustible materials
- Waste Heat Recovery: the heat can be recycled back into the production or used to heat office buildings etc. Recovering the heat means saving energy and reducing CO₂ emissions. With rising energy prices recovering heat is often a profitable investment with short payback period.



Cleaning

A clean and healthy work environment is a necessity for quality production. Cleaning is also an integral part of continuous improvement strategies like, 6 Sigma, Kaizen, Lean, etc.

- Mobile dust collectors
- Compact dust collectors
- Stationary high vacuum systems
- Pre separators
- Cyclones



Workplace service

Convenient equipment and monitoring systems for a safe and cost-efficient workplace.

- Cable reels
- Hose reels
- Control and monitoring Systems for extraction, filtration and transportation.



Energy saving

Nederman offers ancillary equipment for minimizing energy consumption, e.g. by automatically adjusting fans to the right speed, suitable for the work load by the use of inverters.



Nederman's offering covers everything from the design stage through to installation, commissioning and servicing:



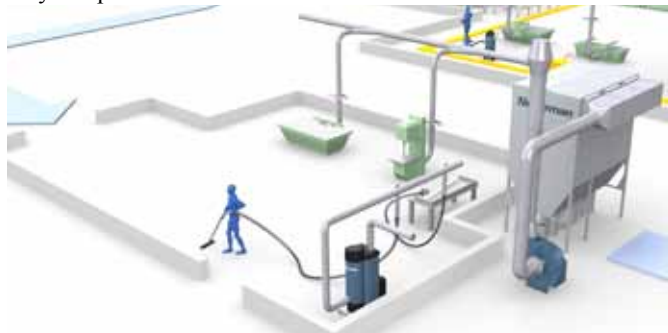
Nederman wood waste management

Extracting and handling wood waste is a necessity for quality production



Primary wood

Sawing and planing generates large quantities of valuable wood waste. To deal with high volumes and continuous processes complete dust free waste handling systems can be engineered to suit your requirements. Closed loop transport systems for silo storage, or automated discharge into single or multiple box-cart stations may be specified.



Secondary wood working – small and medium workshops

Nederman offers a variety of vacuum solutions for extracting and managing sawdust and other types of wood waste directly at the source. Extractors can be fitted directly to machines or to hand held tools. Small and medium volumes of wood waste are typically managed with negative pressure filter solutions, where the fan is placed on the clean side of the filter.

We also offer convenient and flexible QuickFit ducting ATEX approved dampers and rotary valves. For general cleaning Nederman offers both stationary and mobile ATEX approved high vacuum systems.

To suit our customers' needs we manufacture and supply a flexible range of filters for continuous or non-continuous use, with different air flow capacities and different discharge options. Low volume waste processes may discharge directly into purpose made bins.



Secondary wood working – large workshops

Nederman offers a variety of vacuum solutions for extracting and handling wood waste at the source. Extractors can be fitted directly to machines or to hand

held tools. Large volumes of wood waste are typically managed with positive pressure solutions, where the fan/impeller is placed on the dirty side of the filter. We also offer convenient and flexible QuickFit ducting, ATEX approved dampers and rotary valves. The vacuum systems can also be used for general cleaning. In addition to conventional pneumatic transport systems such as fans, cyclones and rotary valves, waste handling products manufactured and supplied by Nederman include ranges of Silos (80–1 000 m³), waste conveyors and screening equipment.



Wood briquetting

When converted into pellets, waste products can be used for energy production or be sold as an energy source. In recent year's landfill tax, road fuel and space heating costs have changed the value of wood waste – making equipment that upgrades the waste into valuable by-products more and more interesting.



Incineration of wood waste

Wood waste can be incinerated to produce energy and heat, representing a large economic value. Nederman offers solutions e.g. fans and filters to deal with the hot gas from the incineration process.

Nederman also has solutions for recovering the waste heat. Depending on the process, the heat can be recycled back into the production or used to heat office buildings etc.

Cyclofilters or bag dust collectors?






Our reverse jet cyclofilters offer very high dust load capacity, minimal floor space and due to the lack of moving parts they are virtually maintenance free.

Our range of bag dust collectors makes more flexible solutions possible. Available with a variety of cleaning methods and waste discharge options including chain conveyor, screw conveyor, rotary valve or sealed bins. The range offers quick, simple installation and powerful filter cleaning.

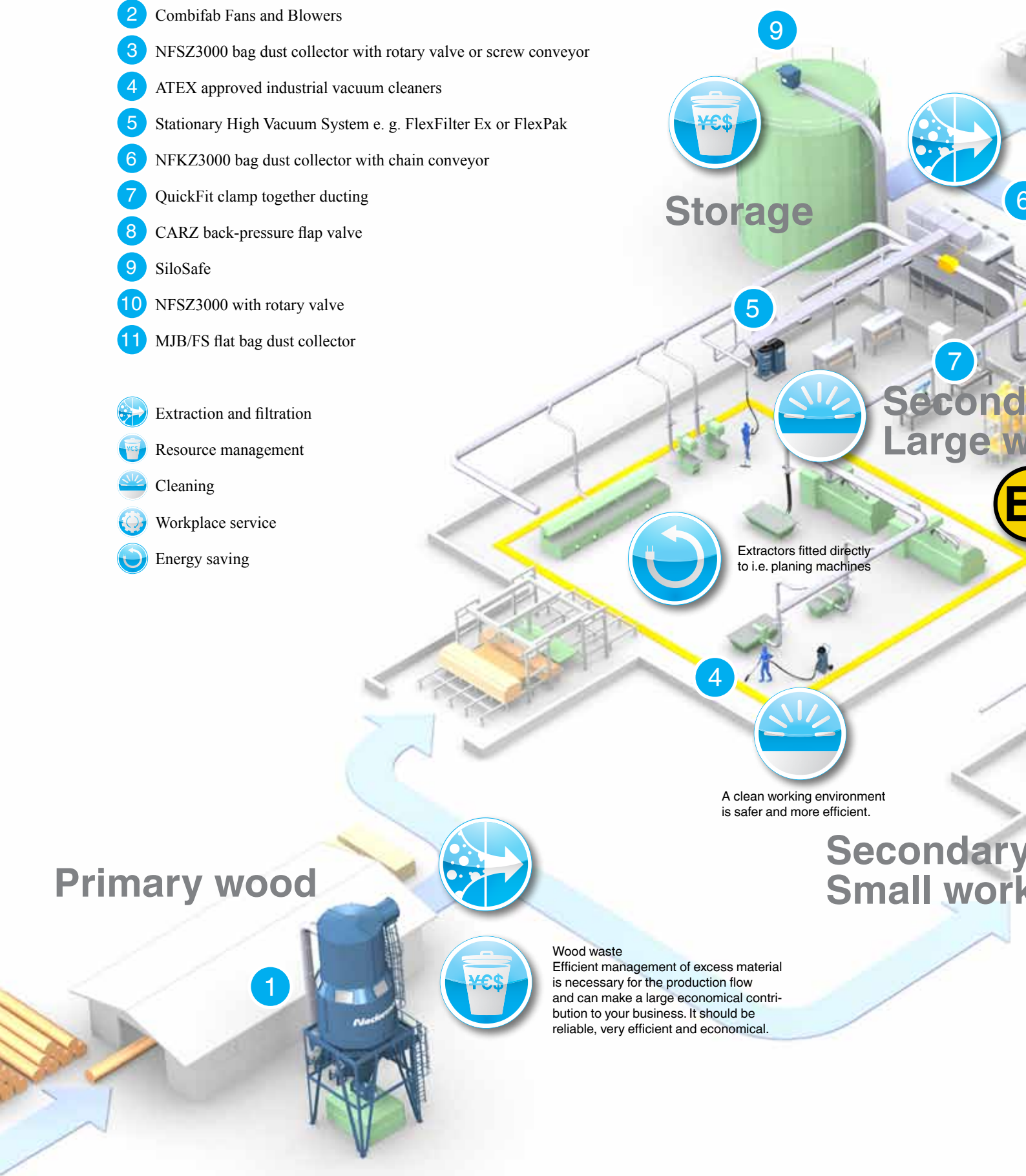
Nederman wood waste management

Examples of problems we solve

- 1 CJB Cyclofilter bag dust collectors
- 2 Combifab Fans and Blowers
- 3 NFSZ3000 bag dust collector with rotary valve or screw conveyor
- 4 ATEX approved industrial vacuum cleaners
- 5 Stationary High Vacuum System e. g. FlexFilter Ex or FlexPak
- 6 NFKZ3000 bag dust collector with chain conveyor
- 7 QuickFit clamp together ducting
- 8 CARZ back-pressure flap valve
- 9 SiloSafe
- 10 NFSZ3000 with rotary valve
- 11 MJB/FS flat bag dust collector

-  Extraction and filtration
-  Resource management
-  Cleaning
-  Workplace service
-  Energy saving

Flue gas c



9
Storage

7
Second Large work

4
Extractors fitted directly to i.e. planing machines

A clean working environment is safer and more efficient.

Primary wood

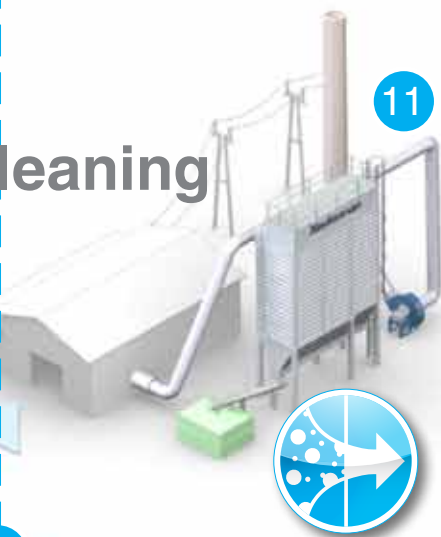
Secondary Small work

Wood waste
Efficient management of excess material is necessary for the production flow and can make a large economical contribution to your business. It should be reliable, very efficient and economical.

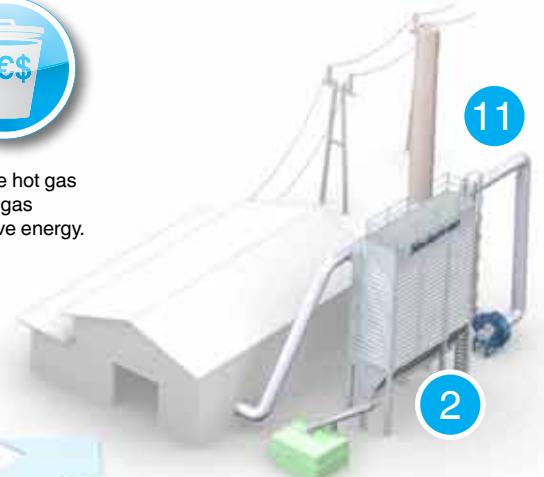
cleaning

ary wood workshops

y wood workshops



Our equipment filters the hot gas from incineration of flue gas and recovers heat to save energy.



Ex

2



10

Wood briquetting

Ex

3



8

2



5



8

A dust extraction system from Nederman fulfills the ATEX demands:

- The explosion strength of the filter has been proven.
- ATEX compliance is ensured by means of explosion relief doors or panels.
- The risk of an explosion spreading may be prevented by installing safety equipment such as rotary valves, back pressure flaps, etc.
- Fans are ATEX certified for handling potentially explosive dust.

Ex

Nederman dust collectors for the wood industry



CJB Cyclofilter

CJB Cyclofilter bag dust collectors maximizes the separation of dust from the airstream. The result is a reduced upward velocity and dust load, thus maximizing bag life. This low dust load greatly improves the efficiency of the filter, even in the toughest of applications, giving typical emission levels of less than 0.1 mg/m³ with only approx. 50% of the filter area of an alternative chain filter. This results in filtration efficiency up to 99.99974%.

The Cyclofilter dust collector combines the advantages of cyclone separation with the efficiency of a bag filter. Available in positive or negative pressure configurations.

Benefits

- The Cyclofilter can handle large volumes of waste.
- Fitted explosion panels, certified under the 'ATEX directive'.
- Reduces residual dust concentration to less than 0.1 mg/m³ (0.00047 gr/ft³).
- Automatic "on demand" pulse-jet cleaning of the filter bags.
- Allows for 24hr operation, even with very high dust concentrations.
- Monitored cleaning system requires very low compressed air consumption.
- Cost effective and efficient.
- Virtually maintenance free due to lack of moving parts.
- Durable filter housing.
- Small footprint.



NFKZ3000

The **NFKZ3000 filter** is suitable for handling large volumes of air. It is a modular filter made of galvanised steel sheet. Filter has telescopic supportlegs and is suitable for outdoor use. Each module (2400 mm) of the filter design is fitted with a combined inspection and explosion relief door. Filter cleaning with regeneration fans.

The filter is fitted with the unique patented SUPERBAG. The filter hopper and inlet section (optional) separates medium-sized/large particles and distributes the air to the filter bags. A double chain conveyor on the bottom of the hopper passes the collected material to a rotary valve for discharge.

Benefits

- Handles air volumes from 6.000–500.000 m³/h.
- ATEX-certified for St1 and St2 dust with a Kst value up to 300 bar m/s.
- Compact design.
- Designed for continuous operation.
- For mounting on the ground or on the roof.
- Overpressure or vacuum versions up to 5.000 Pa.
- Explosion relief upwards or sideways.
- Powerful online cleaning with efficient regeneration fans.
- Patented antistatic polyester SUPERBAGS.
- Easy to install on site and extend when required.
- Low energy consumption.



FS-filter

The functional unit of a **FS flat bag type filter** comprises of the hood for dust-laden gas, the filter casing, the dust collection hopper with support structure and discharge unit. The filter flat bags are arranged horizontally in the dirty gas chamber and the connection with the slotted wall by a clamping frame with leg springs is airtight. Flow direction through the filter is from top to bottom (down-flow principle).

The gas enters the clean gas chamber of the filter through the flat bag. During this process, the dust is held back by the filter media and forms a filter cake which is important for filtration. The fully programmable dedusting process is activated after a specific time period and the dust is cleaned out of the filter flat bag. The dust falls into the collecting hopper and is conveyed out via the dust conveyor unit.

Benefits

- Air volume per filter housing 10.000–250.000 m³/h.
- Filtering surface per filter house 100–2.500 m².
- Modular construction.
- Careful cleaning.
- Low residual dust content due to special filter media.
- Usable for temperatures up to 250 °C.



MJB

Our range also includes filters for large air volumes, high temperatures and large quantities of material. These filters are characterised by their robust design to handle high vacuum and overpressure and 24-hour operation.

Benefits

- Strong welded steel design.
- Exchange of filter from clean air side.
- Weatherproof.
- ATEX for explosive dust in categories St1, St2 and St3.
- Integrated pre-separator with down/cross-flow air distribution.
- Wide range of integrated fans.
- Airflow up to 190.000 m³ per filter unit.
- High constant temperatures.
- Up to 250 °C.



FlexFilter Ex

The **FlexFilter Ex** is manufactured to withstand overpressure from a potential explosion and is equipped with an explosion relief panel. The harmful effects of an explosion are minimized by venting the overpressure and flame propagation via the relief panel to a safe area. The dust collector is fully earth bonded in all modular components. All electric equipment is Ex classified for explosive dust.

Options are available for the collected dust from either a standard 70 L (18 gal) collection bin complete with bin balance kit to allow the use of conductive plastic sack for ease of removal of the collected dust or fully automatic empty device with fully conductive bulk bag with earth cables for larger installations. A control filter comes as standard to allow the use of non-Ex rated vacuum units.

Benefits

- Automatic filter cleaning and disposal.
- Energy efficient.



Auto M-Z

The **Auto M-Z series** is a powerful free-standing filter with an automatic mechanical shaker cleaning system. This is the latest model, based on over 30 years' continuous development work on production enhancements.

Benefits

- All access for maintenance from the front of the unit.
- Dust container.
- Compressed air not necessary.
- ATEX-certified for explosive dust in categories St1, St2 and St3.
- Efficient, automatic electric shaker mechanism.
- Weather-proof for positioning outdoors.
- Neat and compact design makes it easy to position.
- Ten filter sizes 7,5 m² to 90 m².
- Nine fan sizes 0,75 to 15 kW.



S-series

The S-Series dust collector is the hugely successful baby brother of the long established and respected 'NF' family of wood-waste filters. Quick to install and easy to operate, it is the ideal solution for the small shop or single work-cell operation.

It is designed to be used indoors and is compliant with the latest NFPA 664 guidelines-reference 8.2.2.5.1.4*(7).

The S-Series can handle up to 8.500 m³/hr (5,000 CFM) and comes in eleven models.

Air Volume Range: 2.500 to 8.500 m³/hr (1,500 to 5,000 CFM).

Benefits

- Neat, compact.
- Quick and easy to install.
- Bag or steel bin dust collection options.
- Standard units in eleven sizes.
- One bag size fits all.
- Quiet running efficient 1.450 & 2.900 RPM fans.
- Simple maintenance.
- Quick Fit versatile clip together duct connections.
- 4 fan sizes 2.2 to 11 kW.
- Shaker option also available.



FlexPAK

Compact dust collector for dusts, chips, welding fume and more.

FlexPAK is a vacuum unit with direct-driven side channel fan fitted as one unit on a steel profile frame together with starter, control unit and integrated 24V transformer. Automatic filter cleaning. For extraction of welding fume, dust and particles, wood chips, composite materials but also as a central extraction unit for cleaning systems for workplaces and machines. The FlexPak is also available in an Ex version to handle combustible dusts.

Benefits

- Compact design = easy to position.
- The filter is galvanised for a long service life.
- Available with automatic start/stop function.
- Frequency converter and PLC control.
- 70 L (18 gal) bin with wheels.
- Easy to maintain
- Available in Ex version.

Wood waste management our way

Additional products and services include:



Back pressure flap CARZ

A safety device designed to prevent the effects of a pressure wave and flame from travelling through the ductwork back into your facility from a dust explosion.



Control systems and energy saving equipment

We tailor make state of the art control systems, designed to ensure efficient and trouble free operation of wood waste extraction and waste handling systems. We also offer energy saving ancillary equipment such as fan controls, fan starters, motor dampers and fan inverters.



Combifab Fans

Heavy duty centrifugal fans with three different fan wheel designs and four housing and drive configurations to meet your application requirements. Energy saving inverter drives ensure the fans are matched exactly to the required duty with minimum environmental impact.



Conveyors and discharge devices

Cast and fabricated rotary valves, gravity and motorised single or double flap valves, screw and chain conveyors for discharge from hoppers and waste management.



Cable reels

High-quality cable reel for industrial use-workshops. Robust design in high-impact composite materials. Fitted with a pivoting wall bracket that simply snaps onto the reel for ease of installation and a unique safety lock for secure service. Well-suited for use with electrical tools.



Hose reels

The Series 881 Ex vacuum hose reel facilitates the handling of long and heavy vacuum hoses, and provides tidy and safe storage when they are not in use. Reel fitted with automatic damper that opens and closes as the hose is operated in/out.



Commissioning Service and Spares

Maintenance and service for all makes of dust extraction; periodic checks or complete refurbishment/update to minimise depreciation; expert commissioning and re-commissioning service to ensure optimum performance and filter life from new, or following bag or cartridge replacement. Competitive prices for genuine filter bags, cartridges and all components. LEV testing for COSHH compliance.



Ducting

Nordfab QF clipped and FL flanged ducting, are easy to install, alter or extend galvanised steel ducting systems; comprehensive range of fittings and installation components.



Cyclones and separators

A wide range of pre-separators are available, from medium and high efficiency cyclones and multicyclones to large capacity coarse separators and skimmers for flue gas applications.



Rotary Valves

Nederman manufactures robust ATEX certified rotary valves for continuous pressure-less discharge.



SiloSafe

This is a compressed air cleaned cartridge filter with 24 m² filter surface, used for silo ventilation. Strong welded construction in 4 mm hot dip galvanised after manufactured steel sheet.



Arm with PowerBox

Nederman's PowerBox with matching Powerbox arm is the perfect solution for workplaces that need extraction, electricity and compressed air. The PowerBox arm provides great range and flexibility, and the PowerBox itself meets most needs in the workplace.



Mobile filter units

Nederman's mobile dust collectors can be used for many different applications, such as: General cleaning, collection of fluids, material transport etc.

Nederman
www.nederman.com

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