



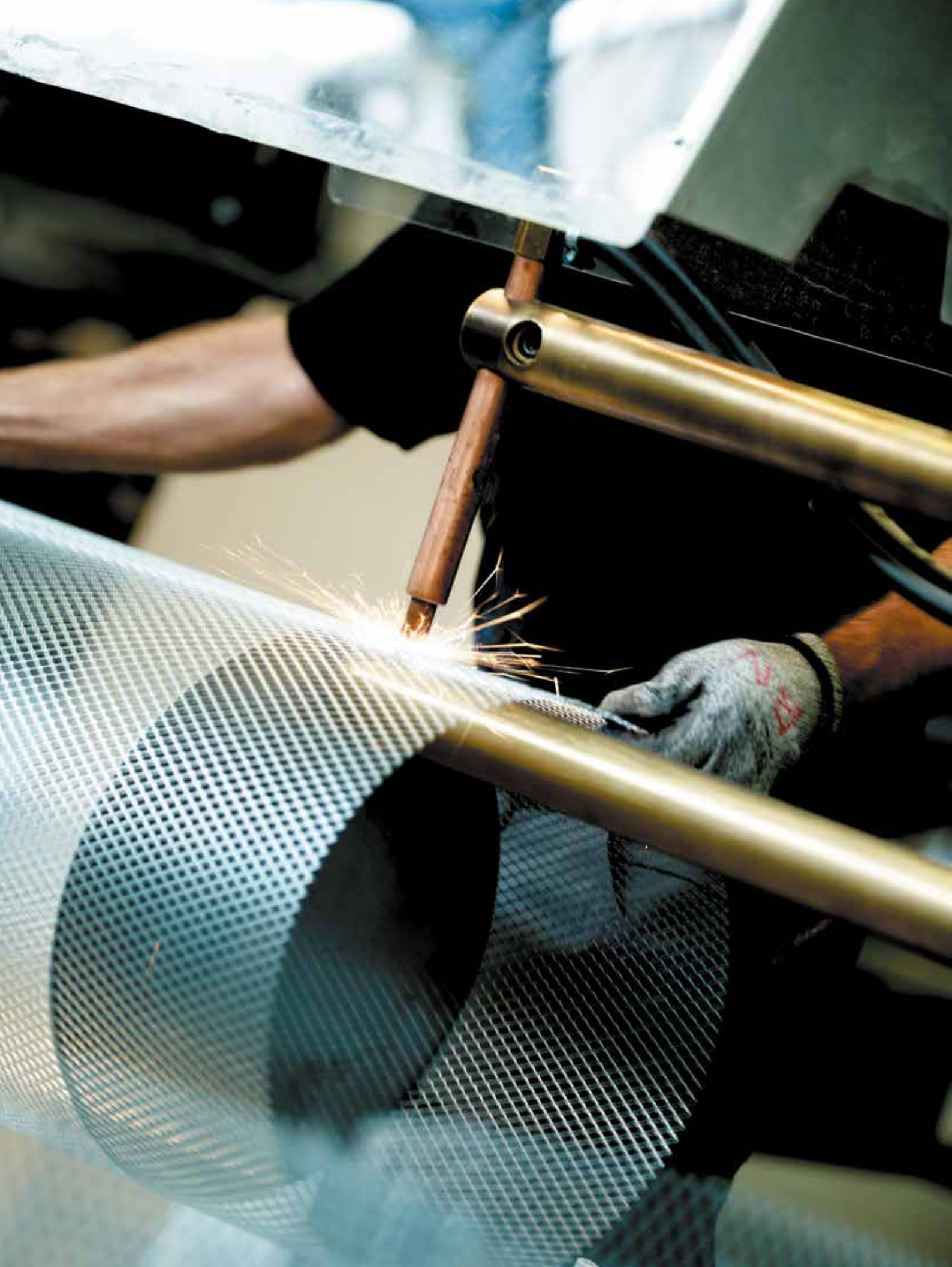
# Industrial Filtration Solutions

We take the dust out of industry™

**NORDIC AIR FILTRATION**

Member of the Hengst Group





# We take the dust out of industry™

Specialized in industrial air filtration since 1991

Nordic Air Filtration – member of the Hengst Group - is a high technology filter manufacturer supplying filters for Resellers, End-users and OEMs throughout the world. With a range of more than 4000 different filters and 20+ types of high quality filter medias, we provide air filtration solutions for various industries and dust types, including abrasive, toxic and explosive dust. In addition to that, we offer customized filter solutions and on-site technical field support.

At our highly skilled R&D departments in Münster, Germany, and Nakskov, Denmark, we ensure certified high quality products in line with our primary goal: to continuously develop innovative filtration solutions that increase performance and reduce cost for our customers.

Nordic Air Filtration became a member of the Hengst Group in 2016. Hengst - [www.hengst.com](http://www.hengst.com) - is an international recognized manufacturer and supplier for the automotive and engines industry as well as a producer of a wide variety of filtration applications in the industrial and consumer goods sectors.

The joining forces with one of the giants within filtration, have also widened our global activities, and Nordic Air Filtration now has divisions in Chicago, North America, Kunshan, China and Fujairah, United Arab Emirates. Our strategy is to be as close to our customers and providing the best service and support as possible.



**“ We will provide our customers with knowhow, innovation, quality, flexibility and security of supply – and thereby live up to our motto “Quality on Time ”**



## Your reliable business partner

We focus on implementing initiatives that benefits our employees, business partners, customers and the environment.

When developing new products, manufacturing our filters or troubleshooting for customers, we always find the most productive solution benefitting the parties involved.

# High quality filters

Manufactured with Danish knowhow

Nordic Air Filtration was founded in 1991 in Nakskov, Denmark, the factory here has developed over time. It is our primary task to produce high technology filters with high quality standards.

The factory is certified under the ISO 9001 program that guarantees optimized and standardized manufacturing processes. This goes for all steps in the process, from the material sourcing, research & development, manufacturing, quality and shipping. Our products are tested according to EN 779, EN 1822, ARAMCO or ASHRAE.

In house we are producing complete cartridges, but also many of the filter elements, including plastic and metal spiro and gaskets.

The pleating of the filters is a special science in which we take great pride. The pleating can come with many different enhancements ensuring optimal performance for various operational settings, you can choose between dimpling, pleat lock, embossed or minipleat.

In house we have also specialized in an ultrasonic welded strap – where no chemicals or glue has been used, the Weltech secures consistent pleat spacing and minimizes trapping of the dust behind the strap. Plus, it has the advantage of better cleaning performance and more even airflow.

Besides Denmark we are manufacturing in Germany, United Arab Emirates, China and USA.

## ISO 9001 steps for optimized manufacturing process



01 | Material sourcing



02 | Research & Development



03 | Manufacturing



04 | Quality control



05 | Quality on time



## **Nordic Air Filtration's media selection**

All filters can be equipped with one of Nordic Air Filtration's different high quality filter media making it suitable for various industries and dust types, including abrasive, toxic and explosive dust.

# Nordic Air Filters

## 4000 + filter combinations

Solutions for all industries

We supply industrial filter cartridges for all dust collector types ranging from silo-top collectors, horizontally mounted cartridge collectors, pleated bag collectors, vertically mounted cartridge collectors and flat cell filter collectors.

On the following pages you will find information about our standard cartridges. In addition to that, we offer

customized filter solutions and manufacture exclusive cartridge design for OEMS, please look to page 15 for further information.

With a range of more than 4000 different filters, we provide solutions for various industries and dust types, and have specialized in dust and fumes from:



### Cement

Solutions for large quantities of abrasive dust particles



### Chemicals

Solutions that meet strict industry regulations



### Sandblasting

Solutions for large quantities of abrasive dust particles



### Metals / Aluminium

Solutions for high temperature and abrasive dust particles



### HVAC

Solutions for all environments



### Textile

Solutions with large filter surfaces to capture fiber dust



### Food & Beverage

Food grade and FDA-Compliant solutions



### Powder Coating

Solutions for non-conductive collectors and abrasive dust particles



### Other industries

Solutions for high temperature etc.



### Paper, Pulp, Woodwork

Solutions capturing all particle sizes



### Plasma / Laser cutting

Solutions for high temperature and abrasive dust particles

## Environmentally friendly version

DIN, Jet & Clean Side Cartridges all come in a recyclable version, made from 100 % ABS (Acrylic Butadine Styrene), it is possible to completely recycle the cartridge as a whole, without having to disassemble it. For operating conditions up to 80°C / 176°F.

100%  
recyclable





# Nordic range of quality filters

## Our most popular filters

### DIN Cartridge

- › Cylindrical or Conical
- › Dirty – clean side removal
- › Most commonly used cartridge for dust collectors
- › Comes with 100% ABS version

The Cartridge is used in all standard applications from shot blasting to wood dust filtration and it can be manufactured in a conductive/antistatic version suitable for operation in ATEX environment. Also, it can be supplied in a stainless steel version compliant for food grade.



### Jet Cartridge

- › Aluminum or galvanized
- › 3-lug or 4-lug
- › Dirty – clean side removal
- › Comes with 100% ABS version

The Jet Cartridge is especially suited for compact filter collectors which requires 3 or 4-lug mounting. It can be installed from either the clean side or the dirty side. It is customized directly on site by placing the gasket either on the upside or underside of the top cap.

Top cap can be supplied with or without Venturi Lock.



### Clean Side Cartridge

- › Optimal for mobile filter units
- › Conical or Cylindrical
- › Clean side removal
- › Comes with 100% ABS version

The Clean Side Cartridge comes in both a conical and cylindrical version. The compact filter cartridges are optimal for mobile filter units and are particularly suitable for industrial vacuum cleaners and welding fume dust collectors.



# Nordic wide range of quality filters

at Nordic Air Filtration we take pride in serving your every need, this also means that we have invented equivalent products to many of the most known and used filters. This is done to ensure a wide variety of filters, and provide our customers with a more economic alternative.



**Steck**  
Molded PU topcap



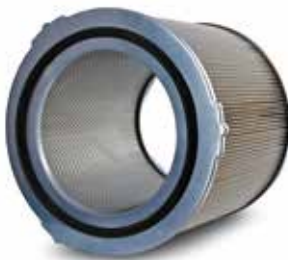
**Dust Filter**  
For mobile collectors



**Square End cap**  
Galvanized or stainless



**Twist Lock**  
47 mm / 1.85"  
52 mm / 2.05" or US



**Curly Bracket**  
In various lengths



**Thread**  
Cylindrical or Conical



**Flat Cell**  
Some models also available in a Tip2Tip version



**HVAC**  
For better indoor climate



## Filter cleaning

Nordic Air Filtration supplies a variety of filter cleaning accessories: **Valves**  
**Header Tanks** | **Venturi** – more efficient pulse cleaning | **Cleaning Wing**  
Contact our sales team for further information or visit our site at  
[www.nordic-air-filtration.com/filtercleaning](http://www.nordic-air-filtration.com/filtercleaning)

# Pleated Bags

## An alternative to Filter Bags

Often, economic benefits can be gained by upgrading a filter bag to a pleated bag solution. With our Total Savings Report based on your specific baghouse details, you receive a full overview of how much a pleated bag solution can:

- › Maximize air flow through your baghouse
- › Reduce energy and maintenance cost
- › Maximize the life cycle of your filters
- › Lower your emissions

### Many inspirational sites



See more [casestudies.nordic-air-filtration.com](https://www.nordic-air-filtration.com/casestudies)

<b>Filter Bags vs. Pleated Bags</b>	<b>Filter Bags</b>	<b>Pleated Bag</b>
Filter length	Up to 10 meter / 400"	Max. 2 meter / 80"
Filter surface area	Conventional	2-4 Times larger than bag filter
Life cycle	Normal	Excellent
Installation/Maintenance	Labor intensive	60% Lower installation and maintenance costs
Abrasion/Leaks	Can occur	Low abrasion risk - out of the abrasion path
Emission level	Limited	58% Lower emissions
Energy consumption	Acceptable	50% Lower energy consumption
Air required for cleaning	As designed	50% - 70% Less cleaning air consumed
Flow	Limited	20% Higher throughput
Pressure Drop	As designed	20% Lower than conventional filter bag
Drop out box	Small	Larger = less dust re-entrainment on filter

# Wide range of Pleated Bag Filters

## Pleated Bags

- › 2 m long, hole sizes in the range 115-208 mm / 4.50-8.19"
- › Bottom & Top Loader
- › High Temp. Steel Top Loader

Increased durability, better efficiency, energy savings, reduced emission levels and easier installation are some of the advantages of the Pleated Bag and can be found in high temperature, top or bottom loaded versions.

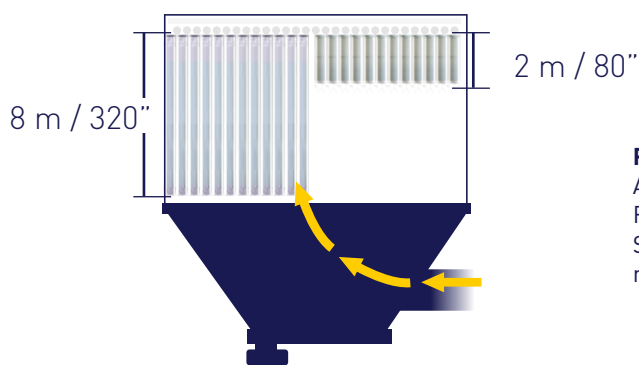


**Please notice:**  
Also comes in a fully recyclable version.

## Multifit

- › Clean side removal cartridge
- › Fits holes in the range 151-167 mm / 5.94-6.60"
- › Adapter ring enables easy installation

Our Multifit fits into several tube sheet holes with same type of filter – enabling easy installation and retrofit into existing baghouses without any modifications.



### Please notice:

A 2 m / 80" Pleated Bag can substitute a 8 m / 320" Filter Bag.

Shorter filters optimize the drop out box area - see more tips for optimizing your collector on p. 19.



## Research & Development

Nordic Air Filtration's R&D departments work closely together to ensure our global customers new unique products that provide added value. We strive to continuously develop innovative filtration solutions that increase performance and reduce operating cost for our customers.

# Guide: customize your filter

at Nordic Air Filtration it is possible to customize your filter so it fits your needs. You have many possibilities and we are very flexible and eager to help you find the right solution to your specific requirements.

## 01

### End caps

- › Molded polyurethane (Soft/Hard)
- › Stainless steel
- › Galvanized or Powder coated
- › Plastic ABS - non corrosive/100% recyclable

## 02

### Mesh

- › Metal/plastic inner spiro
- › Expanded welded metal inner/outer mesh (Galvanized, Stainless or Powder coated steel)
- › Expanded Helix metal inner/outer mesh
- › K-profile for corrosionfree quality

## 03

### Separators

- › Glued strap branded with your logo
- › Weltech ultrasonic welded strap (FDA compliant)

## 04

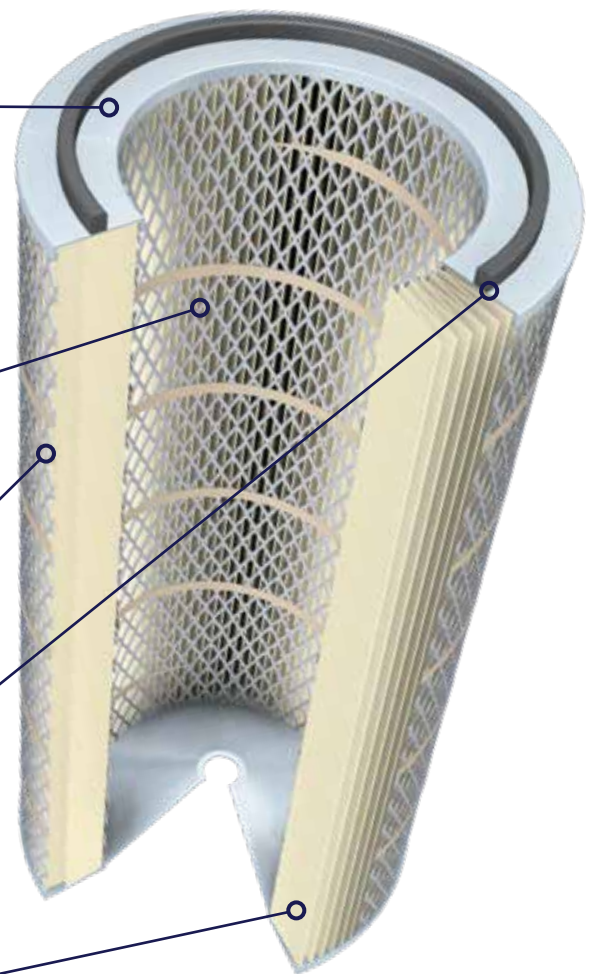
### Gasket

- › Seamless foam gasket
- › EPDM
- › Silicone

## 05

### Media

- › Can be equipped with
- › Nordic Air Filtration's media selection.
- › See our standard filter media types on page 16



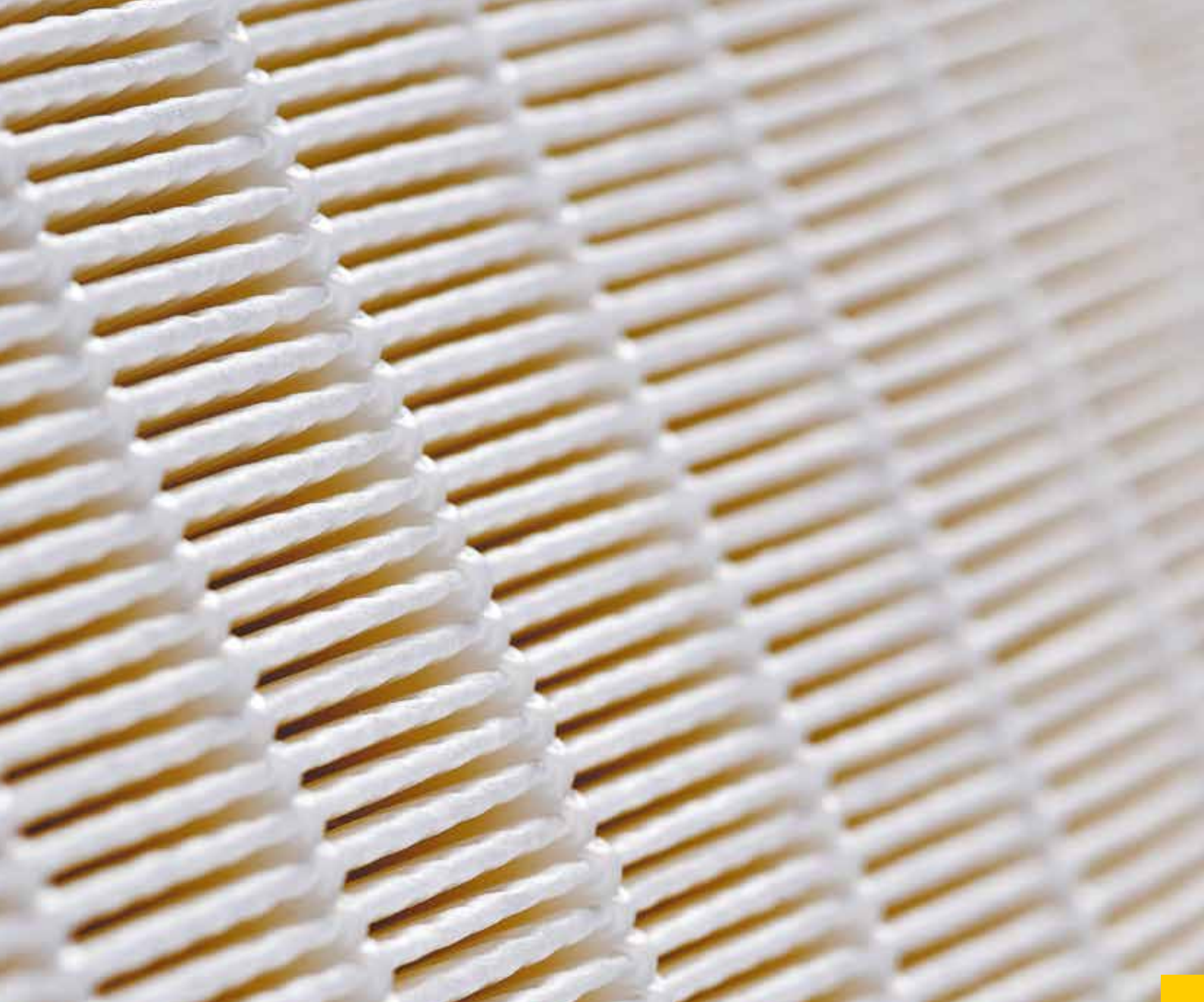
# Standard filter media types

Industry Dust / Fumes	600 Oil-mist	341 High temp.	351 High temp.	UX Nano	UX Nano FH	137	137 ALU	138 FH	138 ALUFH	170	170 ALU	800	800 ALU	806	806 FC	806 ALU	806 ANFC	900	900 ALU	909	909 FC	909 ALU	909 ANFC	Z4 Meltblown	P2 Nanofiber
50% welding/50 % grinding					■			■	■							■						■			
Welding fumes - dry					■			■	■					■	■						■	■		■	■
Welding fumes - oily**								■	■					■	■						■	■			■
Flame Spray***					■						■								■						
Foundry															■							■			
Zinc													■				■		■					■	
Powder coating						■										■						■			
Plasma / laser cutting**					■			■	■		■							■							■
Sand blasting – sand				■		■	■	■	■					■							■				■
Sand blasting – glass								■	■					■		■						■		■	
Sand blasting**** – enamel, steel & aluminum								■	■					■		■								■	
Grinding								■	■					■	■	■					■		■	■	■
Unspecified dust with no smoke	■	■	■	■	■	■	■							■							■				■
Milk powder												■			■				■			■			
Spice*****													■			■			■				■		
Sugar*****													■						■						
Rice												■							■						
Tobacco*****											■		■			■			■						
Coffee*****													■						■						
Cocoa*****													■						■						
Flour*****													■						■						
Cotton										■															
Paper											■					■							■		
Chalk															■						■				
Cement	■	■	■	*	*										■						■				■
Wood dust*****											■					■						■			

**Please notice:** We provide solutions for several other dust types. This is a guide indicating recommended media choice. However, environmental issues, humidity etc. might require a different media solution. Please always confer with Nordic Air Filtration's sales team.

\*Only dry cement \*\* PreTreat needed \*\*\*Off-line cleaning needed \*\*\*\*Moisture resistant \*\*\*\*\*Approved for ATEX





## **PreTreat for optimal filter protection**

PreTreat greatly increases initial efficiency by creating a sacrificial layer that protects the filter media and improves dust release, especially of sticky dust. This results in longer filter life, which saves money and maintenance time, and protects the filter during start-up.



# Guide:

Optimize the performance of your collector

Underperforming pulse jet baghouses are usually the result of high dust loading, inefficient cleaning systems - or a combination of both. Left unchecked, these problems can result in process bottlenecks and increased operating costs. Here are some steps you can take to avoid this from happening.

If you need assistance, we have the unique expertise to identify and solve baghouse problems.

## Recommended General Operation parameters



**Pressure** | 5-6 BAR / 90 PSI

(May vary depending on material type)

**Frequency (off time)** | 20 seconds or minimum time to maintain the desired differential pressure

**Duration (on time)** | 150 milliseconds



### Please notice:

Some collectors may operate successfully under less stringent settings, while other collectors may fail under more conservative settings.

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**Reservoir**  
01

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Poor filter cleaning can be the result of undersized or restricted cleaning system components. It is important to make sure that there are not any restrictions starting from the compressor all the way to the reservoir. Also, ensure that your header tank size matches your cleaning requirements.



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**Cleaning Air**  
02

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Ensure better cleaning with tanks that are kept free of moisture and debris as they can substantially impact the ability to clean the filters.



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**Pulse Frequency**  
03

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The pulsing frequency can never be any faster than the reservoir can recover to full pulsing pressure.



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**Pulse Sequence**  
04

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The pulse sequence should be adjusted to ensure that newly cleaned filters do not take in dust from the neighboring filter being pulsed. Staggering the firing order helps reduce cross contamination.



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**Hopper**  
05

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Should not be used for storage. Evacuation equipment (rotary valves, screw conveyors, etc.) should be sized to unload hopper before accumulation occurs. Units with slide gates should be left open and equipped with sealed drum adapters.



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**Emission/bleed through**  
06

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Due to emission regulations sometimes enforcing a change of filter media, still more dust collector owners seize this opportunity to upgrade to a more efficient filter media, which helps filter even the smallest particles. To reduce emission/bleed through, advantages can be achieved by upgrading from conventional filter bags to pleated bags with spunbond media or media with an ePTFE membrane.



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**Choice of media**  
07

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All dust types have specific characteristics and requires different handling. Purchasing an enhanced treated/coated media (for example ePTFE membrane, HO treatment or antistatic surface) often turns out to be profitable as a result of better pulse cleaning. Some of the factors that influence the right choice of media are humidity, temperature, conductivity and acid.



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**Air flow**  
08

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Several issues can cause reduced air flow in the dust collector. The most common problem is the balance between the cleaning of filters and dust loading into the collector. If you need to handle more m<sup>3</sup>/hour, more filter area is usually required.



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**Drop out box**  
09

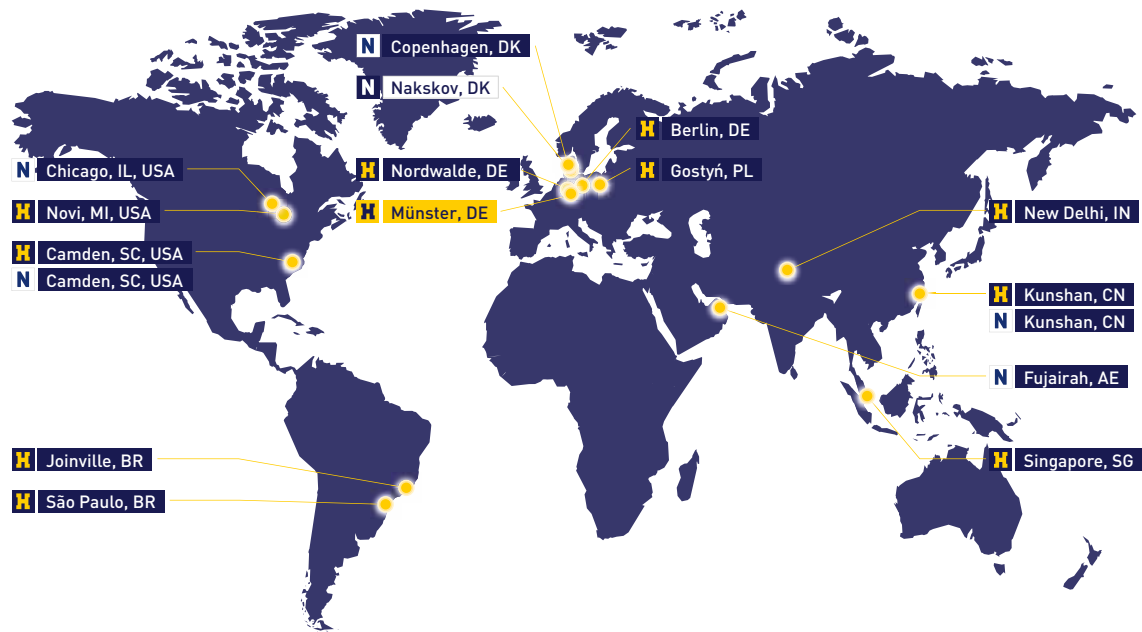
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The drop out box is the distance between the bottom of the filters and the hopper. The greater the distance, the better the conditions are for the heavier dust particles to be dropped from the airflow before contacting the filter surface area. To optimize the drop out box, install pleated bags which are shorter, as well as having more surface area.



**PLEATED BAGS**  
FILTER BAGS

Your global provider of air filtration solutions



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