SCANDI FILTER

Filter Fleece

Product Overview

Overview

As a family-run company based in Middelfart, in the heart of Denmark, we at Gaardbye Supply are your reliable partner in all filtration matters. With more than 15 years of experience in the industry, we take pride in offering expert advice, high flexibility, and short response times.

Our core competence lies in the supply of filter fleece, a wide range of filter elements, and filtration technology for solid-liquid separation. We focus on close partnerships where your needs are at the center, and together we find the right solutions.

Nonwoven types
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Here you will find a detailed overview of our nonwovens.

Selection diagram
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With our selection guide you will find the right fleece quality.

Production
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We cut filter fleece rolls according to customer requirements.

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Information on nonwovens and their filter properties.

Belt filter systems
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The most common belt filter types at a glance.

Three Steps to Your Filter Fleece

1.

Process analysis

Machining process

Material

Medium

Belt filter system

Current nonwoven type

2.

Goal / Process optimization

Cost reduction due to reduced nonwoven consumption

Longer service life of pumps, tools and medium

Finer / coarser filtration

Better component quality

3.

Filter fleece selection

Assortment of over 100 different fleece types

Comparison of the actual/target product properties

Systematic decision to achieve the goal

Nonwoven types

Uniform pore structure
Versatile in use

S-PES-W
Waterjet fleece

Fiber composition
100 % polyester

Bonding
Mechanical *(hydroentanglement)*

Filtration type
Depth filtration *(3D)*

Grammage
50 - 300 g/m2, e.g. 50 | 70 | 100 | 150 g/m2

Machining process
Milling, grinding, honing, smoothing, lapping

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Gravity, inclined bed, compact, vacuum and pressure belt filter

Mechanically bonded nonwoven *(binder-free)*
Versatile in use

S-PES-N
Needle felt

Fiber composition
100 % polyester

Bonding
Mechanical *(needle punched & calandered)*

Filtration type
Depth filtration *(3D)*

Grammage
40 - 300 g/m2, e.g. 40 | 60 | 80 | 125 | 150 | 300 g/m2

Machining process
Drilling, turning, milling, grinding, honing, smoothing

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Gravity, inclined bed, compact, vacuum and pressure belt filter

Highly efficient filter fleece
Gradient fiber structure *(3 layers)*

S-PES-B
BICO nonwoven

Fiber composition
100 % polyester

Bonding
Thermal

Filtration type
Depth filtration *(3D)*

Grammage
40 - 150 g/m2, e.g. 40 | 70 | 100 | 130 | 150 g/m2

Machining process
Drilling, turning, milling, grinding, honing, smoothing

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Gravity, inclined bed, compact, vacuum and pressure belt filter

Use with precoat
Very high transverse/longitudinal tensile forces

S-PES-PO
Embossed PES nonwoven

Fiber composition
100 % polyester

Bonding
Thermal/mechanical

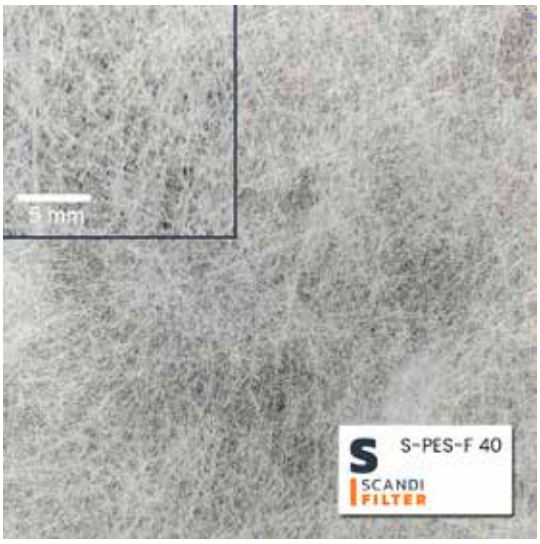
Filtration type
Surface filtration *(2D)*

Grammage
20 - 70 g/m2, e.g. 30 | 50 | 70 g/m2

Machining process
Drilling, turning, milling, grinding

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Vacuum and pressure belt filter



Binder-free
Very high transverse/longitudinal tensile forces

S-PES-F
Spunbond

Fiber composition
100 % polyester

Bonding
Thermal

Filtration type
Surface filtration *(2D)*

Grammage
20 - 100 g/m2, e.g. 30 | 40 | 50 | 60 | 70 | 80 | 100 g/m2

Machining process
Drilling, turning, milling, grinding, honing, smoothing

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Gravity, inclined bed, compact, vacuum and pressure belt filter

Biodegradable
Proven filter fleece for many years

S-CV
Viscose nonwoven

Fiber composition
100 % viscose

Bonding
Chemical *(binder)*

Filtration type
Surface filtration *(2D)*

Grammage
20 - 60 g/m2, e.g. 20 | 25 | 30 | 35 | 40 | 50 | 60 g/m2

Machining process
Drilling, turning, milling, grinding

Medium
Cooling lubricants, mineral oils, water

Belt filter recommendation
Gravity, compact belt filter

Good chemical resistance
Very high transverse/longitudinal tensile forces

S-PP
Polypropylene nonwoven

Fiber composition
100 % polypropylene

Bonding
Thermal/mechanical

Filtration type
Surface filtration *(2D)*

Grammage
20 - 70 g/m2, e.g. 20 | 30 | 40 | 50 | 70 g/m2

Machining process
Drilling, turning, milling, grinding

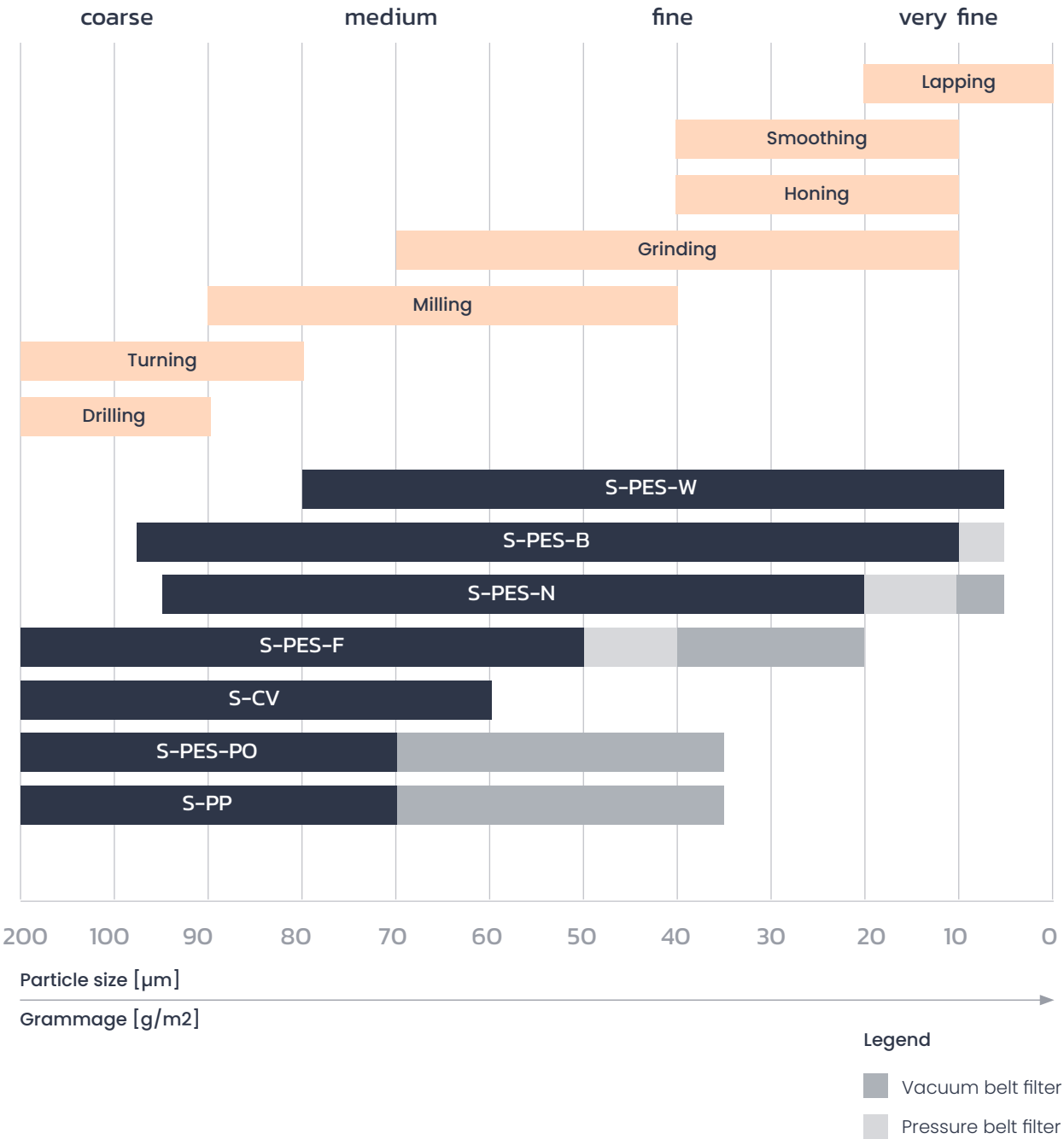
Medium
Cooling lubricants, mineral oils, water, acids, bases

Belt filter recommendation
Vacuum and pressure belt filter

The types of fleece shown here are our standard range.
We can also offer numerous other nonwovens.

We will be happy to check your needs and answer any other questions you may have about our filter fleeces.

Selection Diagram



Other Influencing Factors

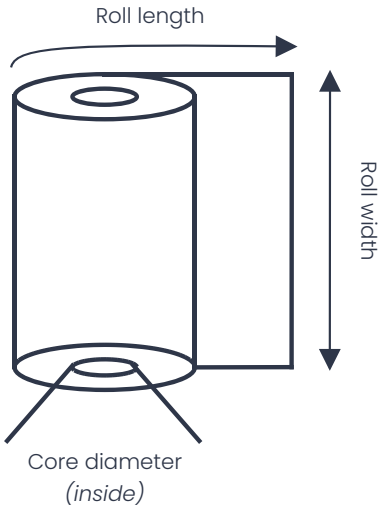
In addition to the processing method, the following factors influence the selection of the filter fleece:

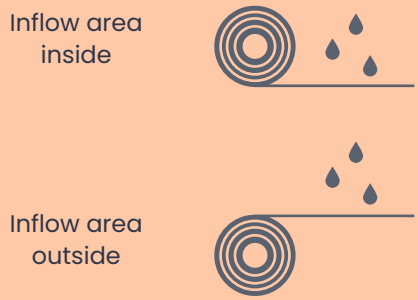
Material
Steel, aluminum, cast iron, carbide, etc.

Medium
cooling lubricant, oil, water, etc.

Belt filter
Type of belt filter system, filter dimensions, etc.

Production





Please note:
Only for fleece types with inflow area

The outside diameter of a roll is often limited by the belt filter system. It depends on both the roll length and the thickness of the nonwoven.

Roll widths	On customer request Standard widths: e.g. 390 | 400 | 500 | 540 | 700 | 710 | 750 | 800 | 1000 | 1020
Roll lengths	On customer request Standard lengths: e.g. 50 | 80 | 100 | 150 | 200 m
Core diameter *(inside)*	70 | 76 mm
Inflow area	Inside | Outside *(for fleece types with inflow area)*

Useful Information about Nonwovens

In addition to the raw material, the properties of nonwovens depend to a large extent on the type of bonding. Factors such as pore volume, addition of chemical binders/additives or any fiber release into the medium play an important role in filtration. These parameters can be adjusted via the bonding process.

Mechanical
Bonding of loosely arranged fibers by barbed needles or high pressure water jets.

Thermal
Contact point bonding of the thermoplastic polymer fibers through exposure to higher temperatures.

Chemical
Bonding of a fiber structure by applying or spraying chemical binders.

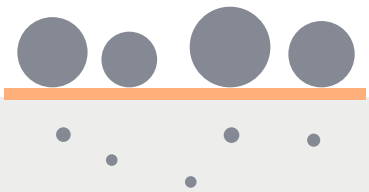
Difference Between 2D and 3D Filter Fleeces

2D
Surface filtration

Retention of particles on top of the filter medium. Therefore only a limited filter cake formation is possible.

 # Suitable for pre-filtration as well as coarser particles

 # Mostly chemically/thermally bonded fleeces

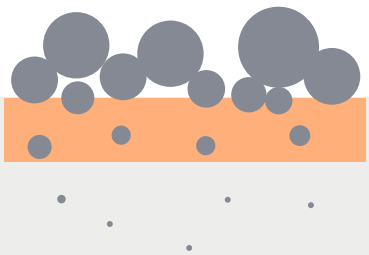


3D
Depth filtration

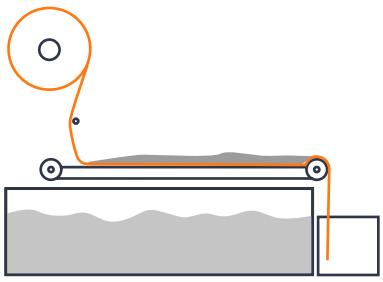
Retention of particles inside the filter medium. Additional filter cake formation, which contributes significantly to the separation efficiency.

 # Improved throughput, service life and increased initial separation efficiency

 # Mostly mechanically bonded nonwovens



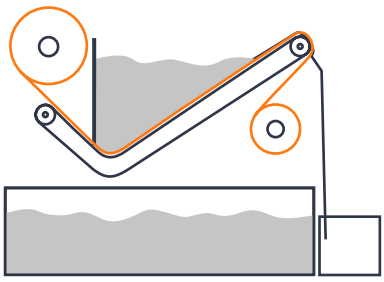
Belt Filter Systems



S-PES-W
S-PES-N
S-PES-B
S-PES-F
S-CV

Gravity belt filter

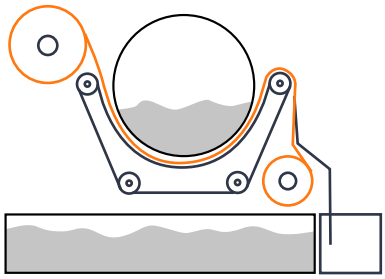
Gravity belt filters are the simplest and cheapest version of industrially used belt filter systems. They are easy and flexible in use.



S-PES-W
S-PES-N
S-PES-B
S-PES-F

Inclined bed belt filter

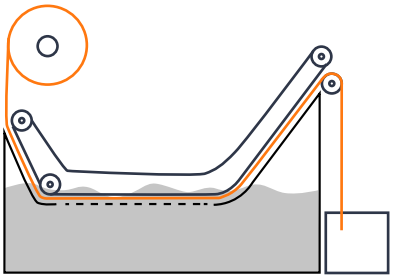
The additional pressure generated by the water column compared to gravity belt filters enables better utilization of the filter fleece.



S-PES-W
S-PES-N
S-PES-B
S-PES-F
S-CV

Compact belt filter

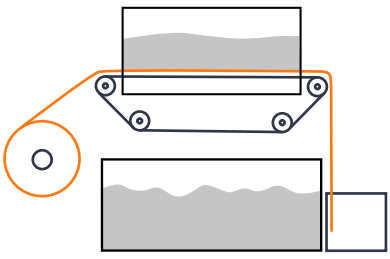
The advantage of this belt filter, also known as a drum belt filter, is its compact and space-saving design.



S-PES-W
S-PES-N
S-PES-B
S-PES-F
S-PES-PO
S-PES-PP

Vacuum belt filter

Vacuum belt filters are often used as central systems. Due to the pressure difference generated, the filter fleece is used extremely well and a good filter cake is obtained.



S-PES-W
S-PES-N
S-PES-B
S-PES-F
S-PES-PO
S-PP

Pressure belt filter

In contrast to the vacuum system shown, the functional principle of the pressure belt filter works with overpressure on the dirt side.

Other products

Our products in the field of air and liquid filtration.

Pocket filters
Standard and custom sizes with filter classes G2 - F9.

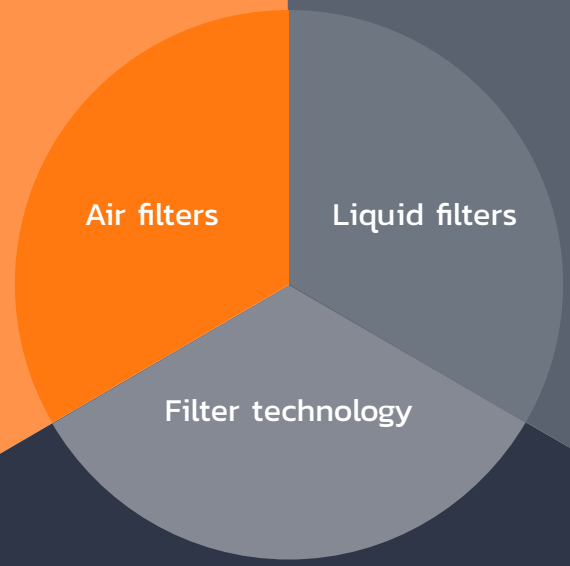
Filter bags
PES/PP/NMO - needle felt or fabric filter bags.

Filter media
As roll goods or cut to size on customer request.

SCANDI FILTER

Filter cartridges
Large selection of materials and designs.

Other air filters
Compact filters, HEPA filters, filter cells & more.



Filter cloths
Individual production in various qualities for chamber filter presses.

Cartridge Housings
Available in numerous lengths - made of stainless steel or PP.

Bag filter housings
Available in different sizes - made of stainless steel or polypropylene.

Special constructions
Various filter systems in the field of filter technology.

ScandiFILTER // +45 66 44 05 10 // info@gaardbyesupply.com
Åben 7-22 (alle hverdage) // Bestil online på www.gaardbyesupply.com