

Industrial Filtration for Grain Processing

Filter elements for dust collection systems

purifying our planet

Hengst FILTRATION

hengst.com

Fit for filtration in critical environments

Grain handling generates lightweight, highly flammable dust, posing a significant risk of explosion in suspended form.

With the right filtration in place, grain handling operations can run safely and efficiently, protecting employees and uptime even in dust-intensive conditions.

Reliable filtration ensures processes remain productive, no matter the volume of dust generated.

While meeting the industry's needs in terms of health and safety, hygiene, product quality, and product recovery, our filter elements ensure continuous performance from grain unloading to the packaging stage.

Additionally, our customised filters are designed to optimise existing equipment and ensure your company is compliant and operating efficiently. We offer a variety of dust extraction filters, filter media, and filter technologies to ensure that each customised filter solution meets your specific requirements.

Your Advantages

- **Operational Efficiency and Cost Savings**
  Extend filter change-out intervals to reduce Total costs of ownership (TCO) and extend operation time.
- **Enhanced Safety**
  Prevent dust explosions and mitigate combustible dust risks.
- **Regulatory Compliance**
  Achieve full compliance with emissions standards while maintaining cleaner workspaces, and safer operations.



Our product range for grain filtration



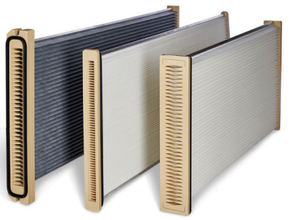
Jet Lug Cartridges



Thread Cartridges



Pleated Bags



Flat Cells



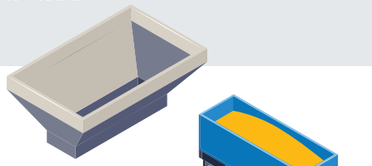
Filter Cartridges

Cleaner Air. Safer Process. Smarter Filtration.

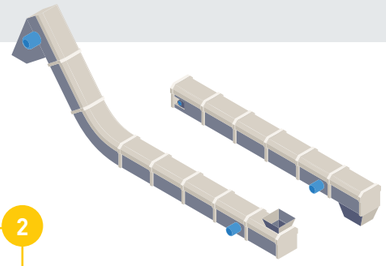
- Protect workers from harmful exposure.
- Prevent dust explosions with conductive filters.
- Achieve regulatory compliance with emissions.
- Extend filter change-out intervals, lowering the total cost of ownership.
- Custom Solutions designed to match your airflow, dust load, and system layout.
- Cleaner workspaces, safer operations, and improved product quality.

Effective filtration at every operational stage

1. Dumping units
- **Challenges:** high dust release, large air volumes, coarse dust
- **Solutions:** high-volume filter socks/pleated bags for robust performance with abrasion-resistant media



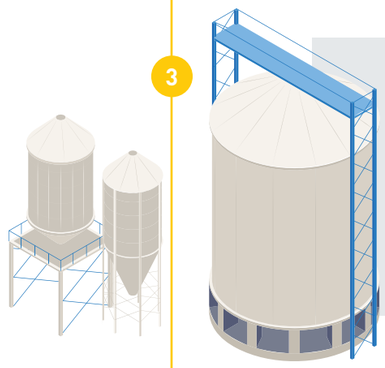
2. Conveyors & transfer points
- **Challenges:** dust clouds, potential electrostatic hazards
- **Solutions:** compact pleated cartridges with PTFE coating and antistatic properties



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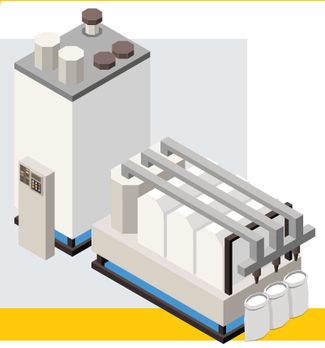
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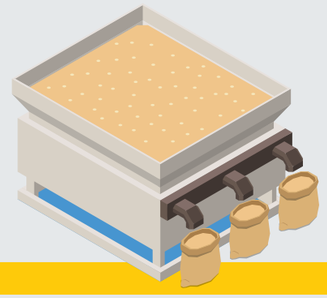
3. Silos / storage filling
- **Challenges:** fine dust displaced during pneumatic silo loading
- **Solutions:** short, pleated elements with antistatic properties for explosive dust hazards

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4. Milling process areas (roller mills, plansifters, purifiers)
- **Challenges:** fine flour dust (explosive, respirable)
- **Solutions**: pleated bag filters with Antistatic polyester & PTFE coating (high efficiency, low emissions)



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5. Flour packing & bagging
- **Challenges:** very fine flour, light and airborne during filling/bagging
- **Solutions:** compact cartridge filters or small bag filters for fine dust capture

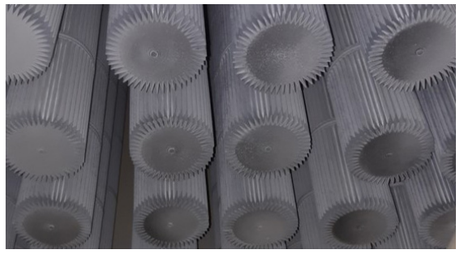
Applications	Dust Type	Filter Location	Filter Type	Filter Media
1. Dumping units	Coarse grain dust, husk	Intake-pit filter	Cartridges	Polyester needlefelt, antistatic
2. Conveyors & Transfer Points	Medium-fine dust	Spot filters	Cartridges / Pleated bags	Polyester PTFE, antistatic
3. Silos /Storage Filling	Fine dust, displaced air	Dome filter	Cartridges	Polyester/ cellulose PTFE, antistatic
4. Milling Process	Fine flour dust	Central aspiration filter	Pleated bags	Antistatic polyester, ePTFE membrane
5. Packaging & Bagging	Very fine flour	Packing aspiration	Cartridges	Polyester PTFE, food-grade antistatic

Other application areas
- Grinding
- Crushing
- Blending

Pleated Bag Designs for stable & durable performance

Made with combined features based on dust type, air volume, dust load, and hygiene requirements.

Product & media capabilities



Stable & durable performance

- Low and consistent pressure drop, even under heavy dust loading.
- Resistant to clogging, abrasion, and degradation in sticky or high-moisture dust conditions.

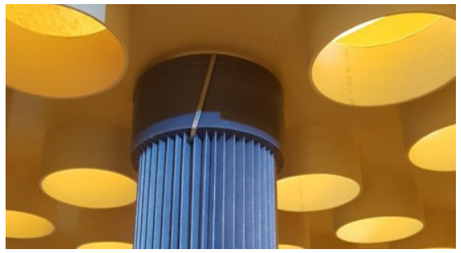


Compact & easy maintenance

- Pleated filters require less installation space than traditional bag filters — ideal for retrofits and tight areas.
- Quick-change cartridges and bags reduce downtime and simplify maintenance.

Safety-first design

- Antistatic and conductive media to lower ignition risk in combustible dust environments.
- FDA and EC 1935 compliant to meet food-industry regulatory demands.



Customizable products for fine or coarse dust





Multiple filter designs

- Plastic or metal top and end caps
- Inner or outer construction elements
- Gaskets
- Mounting options

Filter media

- Synthetic & Antistatic
- Synthetic & e-PTFE coated
- Polyester needlefelt

Specific customization

- Private labeling
- Custom, patented designs
- Grounding features custom-adapted

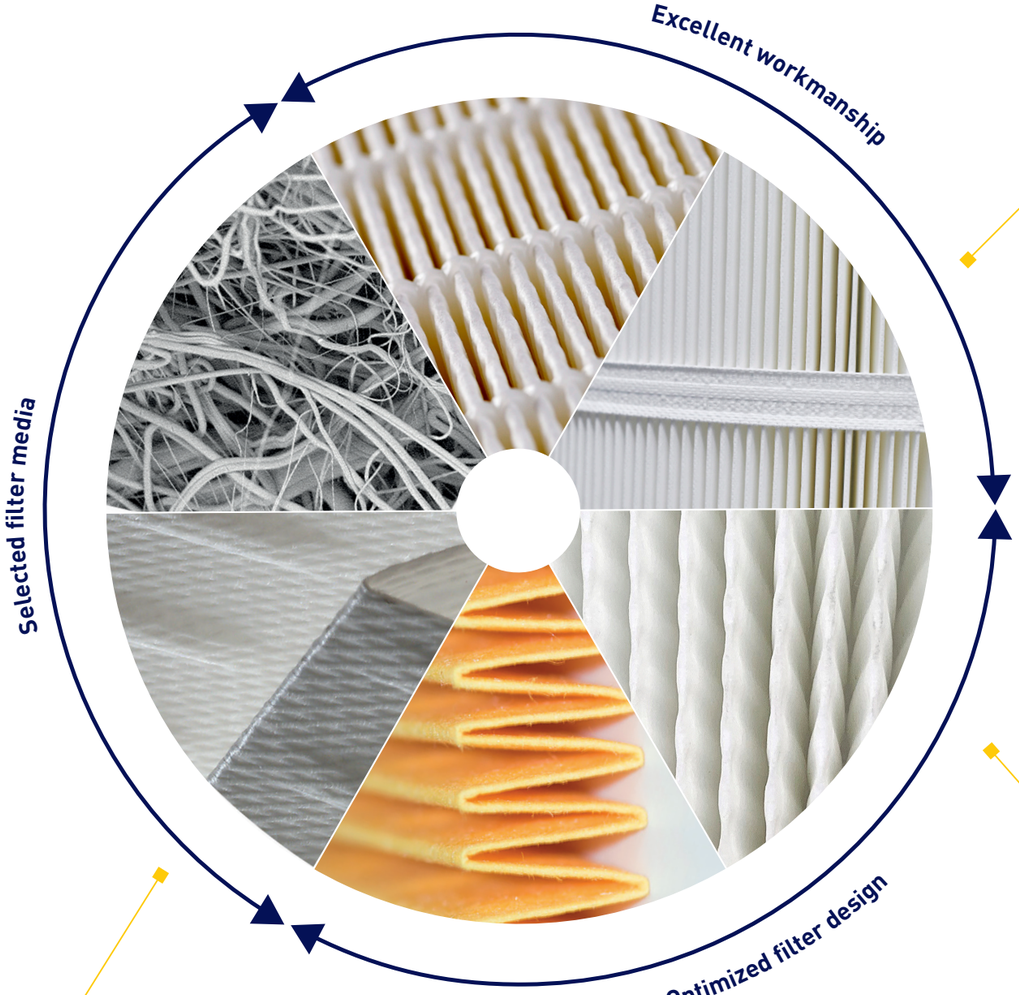
Progress in every form

Customized filter media, optimized filter design, and excellent workmanship

For more than six decades, we at Hengst Filtration have been developing technologies that set global standards in quality, performance, and reliability. Our filtration expertise is based on a unique combination of practical experience, in-depth understanding of materials and media, and continuous research and development work.

Customized solutions for every industry:
Thanks to our filtration expertise, we develop not only standard products but also customized filtration solutions that are precisely tailored to the application, even if it is new. From the initial analysis and joint concept development to series production, we accompany our partners throughout the entire development process.

Weltech
Weltech technology ensures 100% alignment of the pleats without the use of adhesives. Ultrasonic welding of the retaining band at each pleat, without the use of adhesives, prevents collapse, even in high vacuum applications. The perfect pleat spacing results in better cleaning performance of the filter and a more even air flow.



Pleat stabilization

- Weltech technology: Ultrasonic welding for strong, perfect pleat alignment, and food compliance
- Adhesive stabilization solutions for general applications
- Ryton strapping bands: Extreme durability for harsh conditions

Filtermedia

- Blend media (cellulose & polyester)
- Blend media with nanofibers
- Synthetic media
- Synthetic media for high temperatures (PPS & Meta Aramid)
- Synthetic media incl. antistatic coating
- Synthetic media with nanofibers
- Synthetic media with PTFE membranes

Media enhancements

- Wave technology (corrugated)
- Embossing technology
- Mini-Pleat Technology
- Pleat-Lock Technology

Tested and Proven Expertise

Safe and efficient sugar dust management

Situation

Crystal sugar processing generates fine combustible dust that, when mixed with air, can form explosive atmospheres.
Without adequate electrical conductivity, static build-up can ignite this dust, creating serious safety hazards.

This case study presents the results achieved by a sugar processing group in Slovenia using pleated bag filters for transporting ground sugar and silo dust collection.

Key challenge

- Food-compliant filter elements
- Explosion-proof filter design

Info

Read the entire case study

SCAN ME

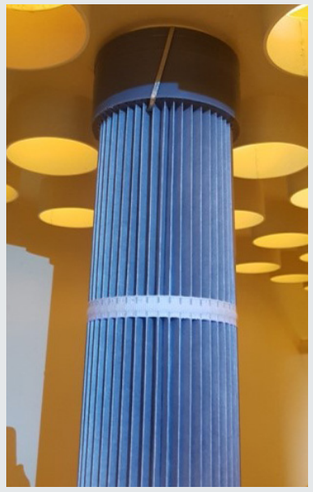


Solution

Type of Product: 64 CPB - Top Loader Pleated Bags
Filter media: Antistatic polyester with ePTFE membrane
Filter media area: 2,5 m²

Results

- Emissions reduced to below 3 mg/m³
- Explosion-proof filtration system
- Full compliance with EC1935:2004
- Excellent electrical conductivity (≤ 67.4 Ω)



Contamination threat in egg powder manufacturing

Situation

A food manufacturer in California produces egg white powder for human consumption. Operating under strict FDA regulations, the client faced production halts and contamination risks due to failing filter components in its dust-collector system.

In this case, our Weltech Technology ensures 100% pleat alignment without glue, improves productivity, is FDA-compliant, and delivers reliable filtration performance under challenging dust-management conditions.

Key challenge

- Food contamination risk
- Often unscheduled maintenance

Info

Read the entire case study

SCAN ME



Solution

Type of Product: 384 CMF – Multifit Pleated Bags
Filter media: Polyester with ePTFE membrane

Results

- Zero production downtime due to adhesive failure on strap bands
- Replaced 384 glued-band filters with ultrasonic welded bands — no detachment or contamination
- Maintained full food-industry compliance (FDA)
- Easy filter replacement thanks to secure band fastening





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