CASE STUDY

KONGSKILDE
www.kongskilde-industries.com

PACKAGING / TEA / TRIM EXTRACTION

Central Trim Extraction System for Tea Packing Machines

A leading tea producer in Poland struggled with paper trim, dust, and cleanliness issues across eight packing lines. To ensure safety and keep production running at maximum speed, they needed a centralized extraction system that could remove waste and maintain a clean working environment.

THE CHALLENGE

A leading tea producer in Poland struggled with paper trim, dust, and cleanliness issues across eight tea packing lines.

Each tea packing machine relied on an individual local exhaust system with small-diameter pipes. These units frequently clogged, causing dust to accumulate around the lines, leading to downtime and the need for regular manual cleaning. Operators had to monitor the exhausts, empty waste containers, and restart machines after stoppages, increasing labor demands. Loose trim and dust on the floor also created safety risks and disrupted internal logistics.

To ensure operator safety and keep production running at maximum speed, they needed a centralized extraction system that could remove waste and maintain a clean working environment.

Before centralized extraction, operators managed dust buildup and clogging manually across all eight tea packing lines.

THE FACTS

Machines 1-2:

- Material: Paper (tissue), plastic film
- Dimensions: 120 x 120 mm
- Material weight: 21 g/m2
- Quantity: 150/min.

Machines 3-8:

- Material: Paper, continuous cutting and extraction
- Trim width: 12 mm
- Material weight: 21 g/m2
- Speed: 17.5 m/min.

THE SOLUTION

Kongskilde installed a centralized trim extraction system that connects all eight tea packing machines, creating one coordinated solution for continuous waste removal and a cleaner production environment.

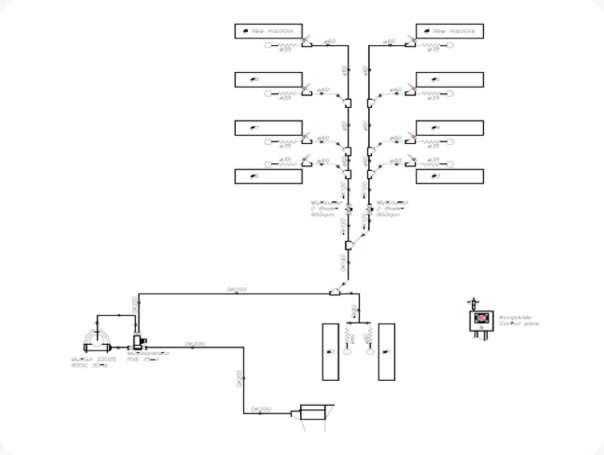
- The installation is divided into three extraction lines, each sized to match specific machine groups.
- MultiAir blowers generate the conveying airflow needed to transport trim and dust from the machines.
- Pressure-monitored suction points help stabilize system performance and reduce the risk of clogging.
- The system is designed to handle small pipe diameters and high-pressure conditions.
- Trim waste is conveyed and discharged into large waste bins for easy handling.
- Dust is separated from the air by a KNFK bag filter and collected in a controlled manner.
- A central control panel manages start/stop functions and alarm monitoring for reliable operation.

THE ADVANTAGES AND BENEFITS

- **Cleaner production** through inline waste collection that eliminates cleaning stops.
- **Higher uptime** keeps production running at full capacity.
- **Lower labor demand** through reduced manual handling and operator intervention.
- **Improved workplace safety** by removing loose trim and dust from the floor.
- **Greater equipment reliability** minimizes failures and maintenance interruptions.
- **Lower heating costs** by recirculating filtered air into the production.
- **Better housekeeping** and more floor space from centralized waste collection.
- **Collected material can be further processed** or resold, supporting circular production.

Ready to improve your production?

Start the conversation today and discover how a pneumatic solution can improve your operations.



Waste collected from the three extraction lines is discharged into large waste bins, while dust is handled separately through the KNFK bag filter for clean, controlled operation.

The MultiAir blower generates the conveying airflow that transports paper trim and dust from all eight tea packing machines to a central collection point.

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