

PLASTIC REGRIND / PET BOTTLES / DUST

Separation of Labels and Dust from PET Bottle Regrind in Plastics Factory

A manufacturer of plastic products based in Poland faced a critical challenge in their production process. The company required a sophisticated plant capable of efficiently separating waste materials from the essential raw materials used in their production. This need arose from the necessity to enhance the quality and usability of recycled PET bottle flakes purchased externally.

THE CHALLENGE

A company located in Poland manufactures plastic products. The customer needed an installation that would separate the waste from the raw material needed for production.

- Kongskilde offered equipment to separate the label and dust from the milling of PET bottle flake, purchased externally.
- Many recycled materials are a mixture of light and heavy material. In this case, the heavier material was desired, which, after separation and dust extraction, would be converted into valuable material for reuse.
- Kongskilde was to supply a plant to be integrated into the production line with optical separators and vibrating screens. The size of the processes additionally required efficient pneumatic conveying.



The KIA aspirator system is designed to separate light impurities or dust from re-processed material or granulated plastic for recycling. Unwanted contaminants and dust are removed and collected, ultimately improving the quality of materials for reuse.

THE FACTS

Material specifications:

- Material: PET flakes
- Thickness: 800kg/m³
- Flake size: up to 30mm
- Re grind amount: 100%
- Capacity: 700kg/h

100 %

INCREASE
CUSTOMER
SATISFACTION

100 %

INCREASE
SEPARATION OF
LABEL FROM FLAKE

100 %

INCREASE
IN HEALTH AND
SAFETY CONDITIONS

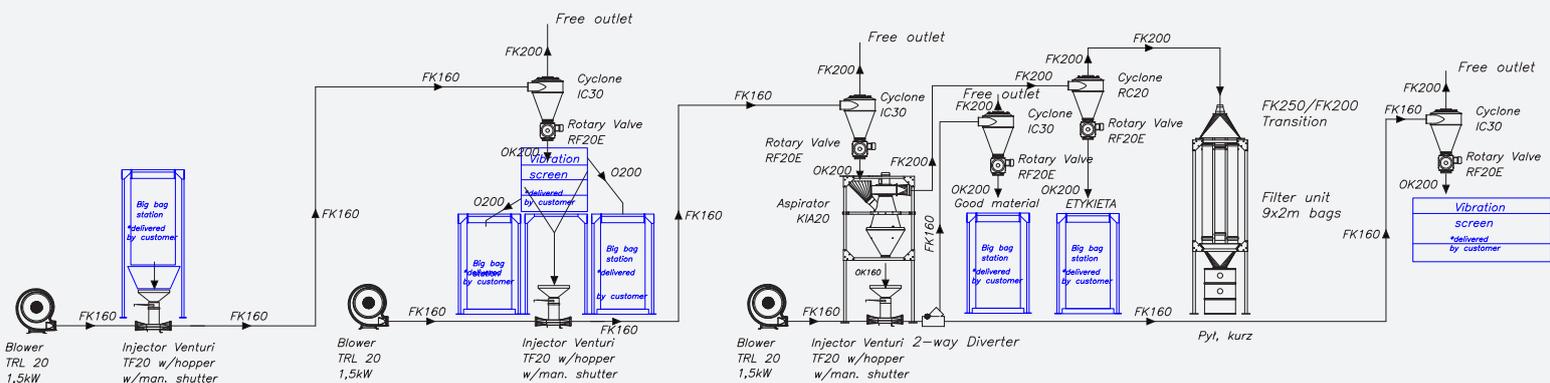


Many recycled materials are a mix of light and dense material, which can be turned into valuable reusable material after separation and dust collection.



THE SOLUTION

- The KIA aspirator employs advanced technology that combines mechanical action with airflow to efficiently separate light fractions and dust from reprocessed material or plastic granulate.
- Regrind material is fed by gravity through a feed pipe into the main chamber, where it encounters an upward air stream generated by a suction blower.
- Light fractions are separated and discharged into a cyclone, while dust is collected separately in filter bags.
- Kongskilde provided a comprehensive conveying system to integrate the various production processes, along with a KIA aspirator for cleaning the regrind.
- The desired valuable material, pure PET flake, falls out of the bottom of the KIA aspirator and is transported for reuse after a single pass through the aspirator.



THE ADVANTAGES AND BENEFITS

Revolutionizing plastic recycling, Kongskilde's innovative cleaning solution seamlessly handles regrind from various sources, employing cutting-edge technology for pneumatic collection and cleaning with the KIA aspirator.

- **Efficient Dust Removal:** The KIA aspirator effectively removes dust and light fractions from processed materials or granulates, ensuring a cleaner output.
- **Reduction of Subsequent Separation Processes:** The system minimizes the need for additional separation processes, such as water separation, leading to streamlined operations.
- **Enhanced Optical Separation:** Improved cleaning of the optical separator results in a more efficient process and higher quality optical separation.
- **Cost Reduction:** The streamlined process and reduced need for additional separation methods contribute to a realistic reduction in production costs.
- **Versatility:** The KIA aspirator is suitable for various types of materials, including both crushed and granulated plastics, making it highly versatile.
- **Customization:** The KIA aspirator can be customized to meet the specific needs of different materials, with multiple adjustment options to optimize the cleaning process based on the level of contamination.

