

# PNEUMATIC TRANSPORT OF **DUST** FROM PET BOTTLE RECYCLING PROCESS CREATES SAVINGS IN POLAND

## / THE CHALLENGE /

- A factory located in Poland is a well-known producer of PET flakes and granules
- The client has a complete line for the downsizing of PET bottles - from grinding to sorting, washing, and cleaning
- The company has a complete line for production of PET granules
- The customer was struggling with a vast amount of dust coming from the various stages of processing bottles into PET flakes
- Such a large amount of dust caused a high risk of accidents, and required the production facilities to be cleaned every two weeks
- Contamination of devices and control cabinets caused frequent mechanical and electrical damage
- Audits of the client did not have satisfactory outcomes, due to such a high amount of dust
- The client needed an effective solution to collect dust directly from the production processes

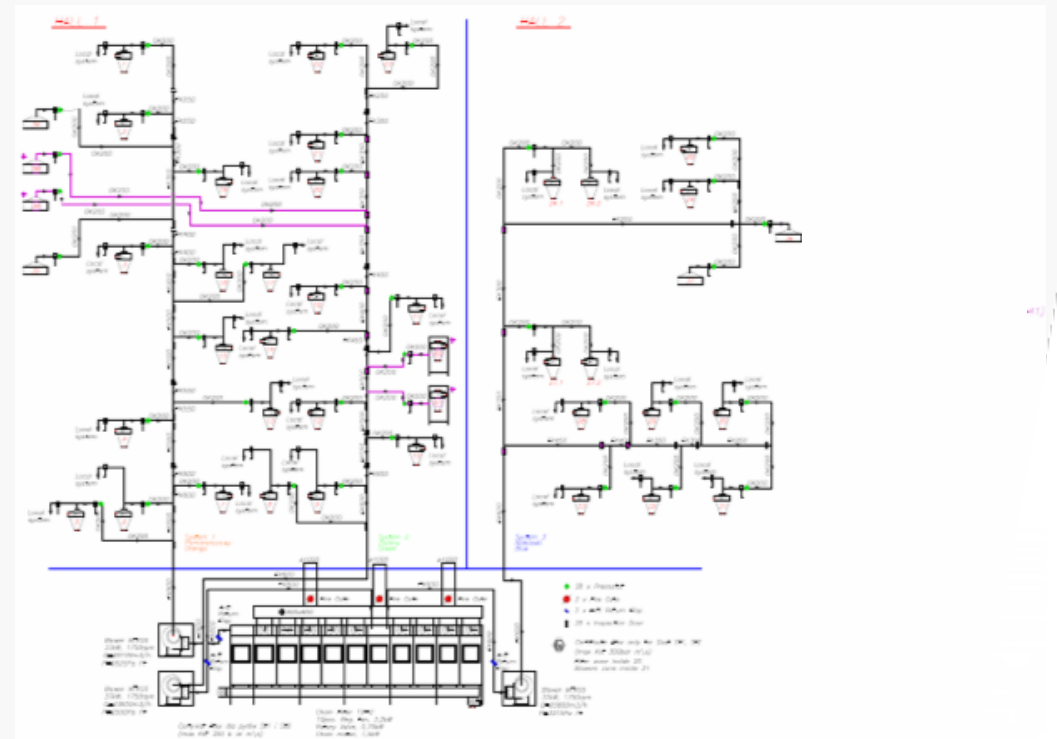
## / THE FACTS /

- Material: Plastic dust
- Material quantity: 1 m<sup>3</sup>/24 hours
- Number of suction points:  
47 cyclones and 4 hoods above optical sorters
- System specifications: Max. distance 40 m
- Max. height: 7 m
- Max. number of bends: 10
- Amount of air to be filtered: ~ 80,000 m<sup>3</sup>/h



## / THE SOLUTION /

- The system includes dust suction points with pressure sensors
- The installation was divided into three separate lines where the lift force is generated by BTK fans
- All dust is separated from the transported air by the bag filter (KNFK) and discharged to a large bag with a dust-level indicator
- All of this is controlled by an intuitive control device



## / THE ADVANTAGES AND BENEFITS /

- Kongskilde's solution collects inline waste - there is no longer need to stop production for cleaning
- The risk of accidents has been significantly reduced
- Equipment failures are minimised
- Downtime of control equipment has been reduced
- The return of air from the filter has lowered heating costs
- Dust collection significantly facilitates logistics, and allows it to be further processed or resold

