

When dust and fumes are issues by transport of regrind material, pneumatic solutions with filter improves health & safety as well as productivity

The challenge

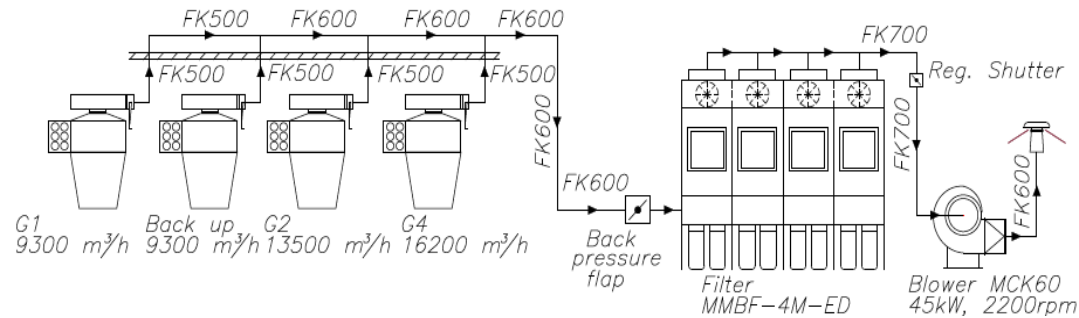
- The company located in the Netherlands is a global company that produces custom and standard blow-molded plastic bottles and containers
- The factory is located next to its biggest customer in the same building only being separated by a wall. The pickup points for rejected material are located on the customer's side of the wall in the same building.
- The factory experienced dust, angel hair and Peroxide fumes from the finished production site from their customer as well as dust and angel hair from their own production site. Nb. Peroxide is used for cleaning in the production area of their customer.
- The Peroxide fumes were going through the suction points of the conveying system into the cyclones
- Since the outlet of the cyclones were not connected to the outside or a filter, the air, dust and fumes were released *inside* the waste handling room.
- The solution must handle the dust and fumes issue.

Facts

- Material: Dust. HDPE, PP and PET
- Demands from customer. 24.000m³/hr. (divided over 4 cyclones)
- Suction points: from 4 cyclones to filter.
- Bulk density: Dust and fumes
- Conveying distance: H: max 90 mtr. V: max 7 mtr

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The solution



- With Kongskilde wide product range, a solution with cyclones, pipelines and top outlet boxes were made that could convey the dust and Peroxide fumes, despite very limited space in the production hall
- The solution consists of a MMBF-4M filter with Rotary valve to clean the air, MCK60 blower with external frequency controller in a sound booth to extract the air from all the cyclones. The FK500 and FK600 pipes were able to handle the high pressure even when routing was 90 meter

The advantages and benefits

- The flexible pneumatic solution has a considerable positive effect on the health and safety working environment with the dust and fume issues under control. Cleaner space area without dust and fumes brings better working conditions and less risk of work-related diseases.
- Less need for maintenance of the pneumatic conveyor solution and even less need for cleaning the factory without the dust issues gives a net cost saving.
- High flexibility and the modularity means a quickly setup of the pneumatic conveyor solution even to meet special requirements. And with the pipes mounted on the ceiling it releases floor space for other uses.

