

Conveying of wallpaper trim in a pneumatic solution minimizes dust and noise issues and improves productivity while contributing to the fire protection

The challenge

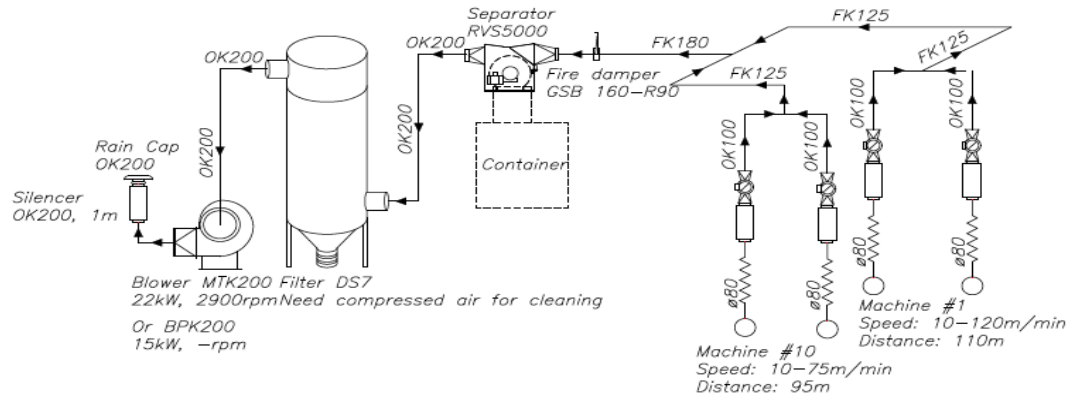
- The factory and headquarter located in the Netherlands is a well-known producer of wallcoverings, and in this case, the company produces and sells wallpaper around the world
- The conveying solution has to be able to deliver an adequate vacuum to secure gentle transport of the wallpaper trim
- The system is equipped with in-line cutters, fire protection shutters on walls to meet local fire regulations
- The system must pass through a fireproof barrier and contribute to the overall fire protection in the production
- A filter has to remove any dust from the air before it's released outside

Facts

- Material: Wallpaper
- Trim width: 20 mm
- Number of machines: 1 (75 m long, 5,5 m wide and 7 m high)
- Suction points: 2 pickup points
- Speed: 120 m/min
- Material specifications: Paper: 80-180 g/m², Suide/textile: 450 g/m², Flice: 60-150 g/m².
- Conveying distance: H: 120 m V: 10 m with 6 bends
- Fire protection: The fire dampers needed high quality air (dry) so there was installed an air dryer

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The solution



(The drawing is showing two production machines as the system is prepared for an additional machine to be installed in the future)

- The Kongskilde solution consists of two Multicutters, the RVS-5000 Separator and BKP200 blowers, DS7 Filter unit and the firebreak STFR PCMTB R90 unit to ensure high productivity without risk of fire
- As the system passes a fireproof barrier, there was put in special fire dampers that is suitable for handling systems where products are going through main pipes. The fire damper needs dry air, so there was added an air dryer
- The system generates a fast and powerful conveying of the trim material from the production lines through the Multicutters to the rotating separator (RVS 5000), which is placed on top of the waste containers for easy handling

The advantages and benefits

- The Kongskilde solution has a high flexibility with the modularity that means a quick setup of the pneumatic conveyor solution even to meet special requirements like fire protection and filter for clean air
- The system generates a fast and gentle conveying of the trim material and secures high productivity without creating dust in the production facility and easy and cost-effective removal of the waste
- The system is equipped with in-line cutters, which allows more machines in one central system even though the trims not are running at the same speed

