



## TIRE INDUSTRY

### Odour control for Mixing & Batch-off processes

During **Mixing & Batch-off processes** odours occur to a large extent that have to be treated in an application and customer specific manner.

### Requirements

Our customer, a well-known international tire manufacturer from Germany, was faced with a problem. Several production processes generate odours emitting a large airflow with a typical rubber smell. These emissions caused problems in the wide area of the factory, particularly expressed in complaints from residents. As a result stricter terms and controls to reduce these production odours have been imposed by local authorities.

As specialist in cleaning exhaust air Riedel was assigned to implement a system to reduce these odour emissions. The customer's goal was a reduction from 1,000 below 500 OU/m<sup>3</sup> in the exhaust air of the Mixing and Batch-off processes. In terms of treating such a large airflow of 200,000 m<sup>3</sup>/h, the biggest challenge was the limited available space for installation. In addition, the system should not increase the differential pressure of the existing ventilation design.

### Challenges



treating a large airflow without generating pressure loss



designing a system for a pipe diameter of 2.20 m



reducing odours below 500 OU/m<sup>3</sup>



adapting to a very limited space



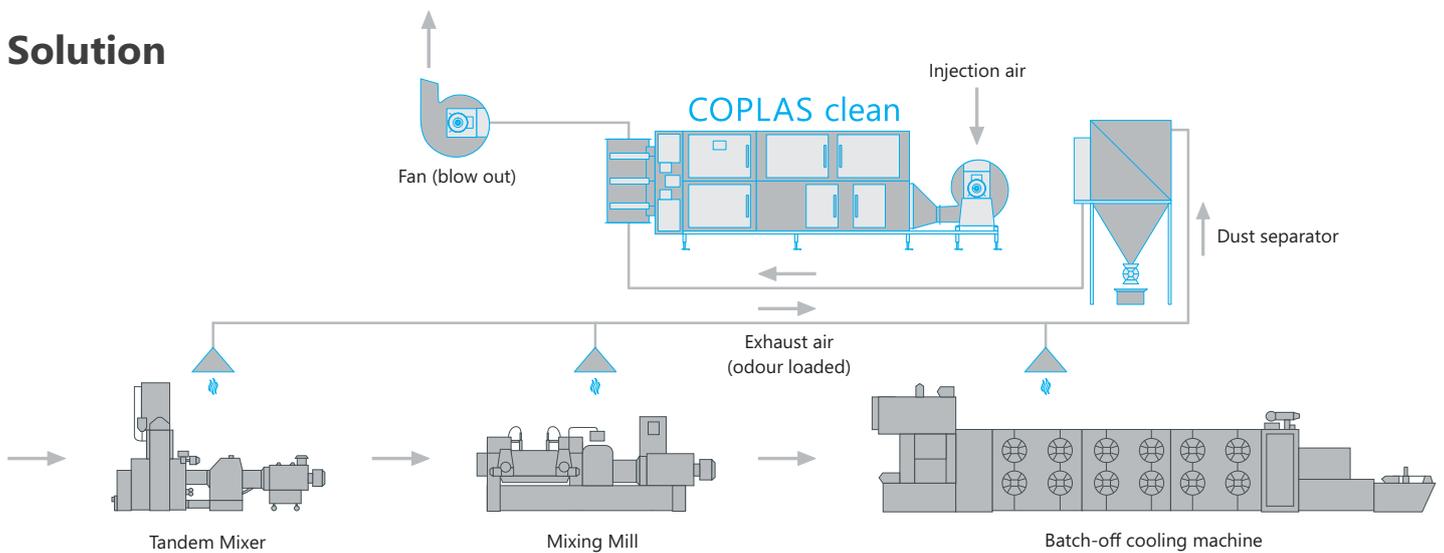
Based on these requirements and challenges Riedel was supposed to develop a customized, high performing solution that is space-saving and flexible to react on production changes.

## Approach

In the first step, all relevant operating data, official requirements and local conditions were recorded. Subsequently we carried out the customizing with our **COPLAS clean mobile unit** directly on site and treated small parts of the exhaust air with different power settings. An independent and certified odour laboratory accompanied this process and took odour samples before and after the treatment. These samples were analyzed on site by a trained team of panelists and the reduction rate as well as the required power input of the system was determined.



## Solution



## COPLAS clean

Based on the results of the customizing, a complete system was designed and installed on the roof of the tire manufacturer. Due to the compact design and the injection principle of our COPLAS clean system, the customer's existing infrastructure did not have to be changed. Acceptance measurements confirmed the results of the customizing, so that the customer now fulfills the official requirements. Further COPLAS clean systems have been implemented in the area of curing.

## Benefits

-  **high odour reduction** to fulfill official requirements
-  **maintenance-friendly design** to ease and reduce maintenance efforts
-  **control system** to adjust performance in 1% steps according to specific needs
-  **modular and compact** for an easy and space-saving solution
-  **integrated fan** to avoid pressure losses and to ensure performance
-  **cold plasma technology** without use of water or chemicals and generation of waste

»COPLAS eliminates odours like nature  
- only faster.«

Lars Kükenshöner

Riedel Filtertechnik GmbH

Westring 83 | 33818 Leopoldshöhe | Germany  
phone +49 5202 992-203 | riedel-filtertechnik.com  
Contact us at [sales@riedel-filtertechnik.com](mailto:sales@riedel-filtertechnik.com).