A well-known manufacturer of Diesel-systems produces in Homburg/Saar among others fuel injection pumps for passenger cars.

The components are produced on different machine centers. In the molding machines oil is mainly used as cooling lubricant for the tools. Due to the high rotary speeds the oil evaporates in working room of the machine centers. The oil mist needs to be evacuated from the machine and the employees need to be protected against breathing in the harmful oil aerosols.

Challenge

At the machine centers of the manufacturer there are generally electrostatic-separation systems installed. The air together with the oil mist is evacuated from the machine working room, but the separation result was not satisfactorily.

Issue

- Oil drops deposit in the factory hall and on the machines
- The machine operators and other employees have to breathe in harmful oil aerosols
- Very short maintenance intervals for the electrostatic separation system (4x per year)

Target

- Increased separation rate and significantly reduced remaining oil content in the air
- Compliance with the prescribed values of the ‘TA-Luft’
- Reliable complete solution with low maintenance requirements
- Assured protection of employees and equipment

Solution statement

The Filtration Group LGA oil-mist separators have been installed, piped, configured and launched on multiple machine centers by the Filtration Group service engineers.

Result

- A significant increase of the separation rate was achieved and documented
- Secured separation and recovery even of finest oil droplets by the nearly maintenance free coalescer principle
- Protection of employees and equipment thanks to the compliance to prescribed TA-Luft values
- A report in the internal BOSCH company newspaper shows the new solution with all involved employees

Customer value

- Extension of the service interval from 3 to 12 month
- Reduction of machine downtime to a necessary minimum
- Reliable protection of the employees’ health
- Complete recovery of the separated oil
- Nearly no wasted material in the LGA-system
- The issue of intensive cleaning efforts for the removal of oil films in the production hall and in the machine centers has been eliminated completely

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