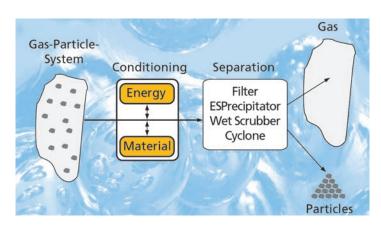
Short Course II · February 22, 2021

Fine Dust Separation

This 1-day "Fine Dust Separation" Short Course is of interest to engineers, technicians, scientists, managers, and other personnel involved in gassolid separation in the process and other industries. They will find the course informative, regardless of whether they design, purchase, research, or use dust separation equipment for product recovery, emission control, air cleaning or process gas cleaning. It is a comprehensive review of the processes involved in the separation of solid or liquid particles from gases, which will emphasise practical aspects and present appropriate theoretical information as necessary.



- 8.30 h Welcome Coffee
- 9.00 h Introduction Particulate Matter (PMx); Dust Separation; Air Cleaning; Overview of the course
- 9.15 h **Evaluation of Dust Collection Equipment** Particle size characterisation, concentration measurement, overall and fractional collection efficiency
- 10.00 h **Centrifugal Collectors (Cyclones)** Mode of operation, basic designs, application, collection efficiency, pressure drop
- 10.45 h Coffee Break
- 11.00 h Fibrous Filters (Deep-Bed Filters) Mode of operation, basic designs, application, collection efficiency, pressure drop
- 11.45 h Fabric Filters (Surface Filters) Mode of operation, basic designs, application, operating characteristics, design calculations
- 12.30 h **Questions and answers** An open-floor question and answer session

Simulation Pinhole Image: Comparison of the pinker of the

Topics:

Evaluation & Selection of Dust Collection Equipment Wet Scrubbers Centrifugal Collectors / Cyclones Electrical Precipitators Fibrous Filters / Deep Bed Filters Raw Gas Characterisation and Conditioning Fabric Filters / Surface Filters

- 13.00 h Lunch
- 14.00 h Wet Scrubbers Mode of operation, basic designs, design calculations, application, droplet separation
- 14.45 h **Electrical Precipitators** Mode of operation, basic designs, design calculations, application, operating characteristics
- 15.30 h Coffee Break
- 15.45 h Selection of Dust Collection Equipment Comparison of the different techniques, strength and weaknesses, fields of application, selection procedure
- 16.30 h Raw Gas Conditioning Additional techniques for enhancing dust separation equipment (Electrical and acoustic enhancement, additive dosing, precoating,...).

17.15 h Discussion

An open-floor question and answer session.

Course Presenter

Prof. Dr.-Ing. habil. Eberhard Schmidt is Full Professor for Safety Engineering/Environmental Protection at Wuppertal University. His academic degrees he earned 1991 and 1998 at Karlsruhe University. From 1993 to 1994 he was affiliated with the Joint Research Centre in Ispra/Italy. In the years 1998 and 1999 he was with Degussa company in the department of process engineering / particle technology.

He is Co-Chairman of the FILTECH Conference and was Scientific Secretary of 10th World Filtration Congress. He has published more than 100 technical papers, books, patents, etc. and consulted and lectured throughout the world.

