

# ENERGY INDUSTRY





# THE BEST SOLUTION

## TECHNICALLY AND ECONOMICALLY

■ With a complete program for dedusting, heat recovery and pollutant reduction, we offer process-specific solutions of the highest caliber. This makes it possible to compare the advantages and disadvantages of different variants side by side, so that these systems provide the greatest ecological as well as the greatest economic benefit for the operator.

Take advantage of our single-source system solutions. These easy-to-coordinate solutions offer mature process technology with the highest levels of operating safety and best efficiency.

# EFFECTIVE DUST SEPARATION

RELIABLE AND PROVEN

■ For the separation of particles, centrifugal separators for pre-separation and dry electrostatic precipitators for final cleaning represent the best available technology. The precise dimensioning and the customer-specific selection of the right system combination guarantee economical and safe operation.



## Dry electrostatic precipitators

Single- and multi-field dry electrostatic precipitators can be used to remove dry gases and dust with very low operating costs and virtually no maintenance and offer a removal rate of more than 99%. Our customers appreciate the high level of operating availability, the low maintenance requirements and the excellent access for service personnel.

More than 70 different types and a variety of system combinations, e.g., systems with integrated multi-cyclones or direct exhaust stack, are available for the performance range from 250 kW to 100 MW.



## Centrifugal separators

Spark and rotary separators, as well as tangential and axial cyclones, are usually combined today with additional dedusting and flue gas cleaning plants because of technical safety issues and economic considerations.

# HEAT RECOVERY

## INCREASES PLANT EFFICIENCY

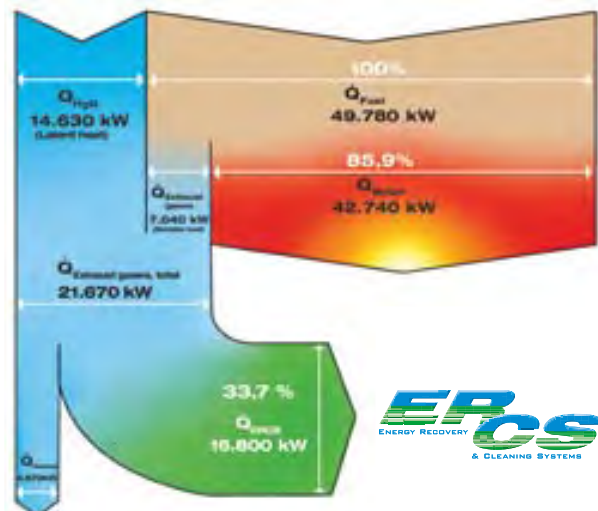
■ If untreated and wet biomass is used to generate heat and electricity, the use of exhaust gas condensation plants is generally recommended. The ERCS process (Energy-Recovery & Cleaning-System) developed and patented by Scheuch offers not only the accustomed and valued levels of reliability with respect to dust and particle separation, but also highly efficient heat recovery and energy-optimized plume removal.



### ERCS Systems

With these systems, it is possible to recover up to 40% of the firing thermal capacity from the otherwise unutilized exhaust gas and to guarantee clean gas dust levels below 5 mg/Nm<sup>3</sup>dry. With timely consideration during the planning phase, operators can either reduce the dimensions of their boiler plants accordingly or save up to 30% of the required fuel. This results in a clear reduction in both capital investment and operating costs and thus represents a significant increase in the overall efficiency of the heating plant or combined heat and power (CHP) plant.

These ERCS systems are available for plants with firing thermal capacities between 1 and 100 MW and can be retrofitted to existing dedusting installations without difficulty. Depending on the requirements, both electrostatic precipitators and fabric filters can be combined with condenser stages and/or economizers or air pre-heaters.



In a plant with a firing thermal capacity of not quite 50 MW, the ERCS system can recover up to 16.8 MW of otherwise unutilized energy from the exhaust gas.



# EFFICIENT REMOVAL OF POLLUTANTS FOR THE HIGHEST DEMANDS

■ Because of their exceptional filtration performance, fabric filter plants are extremely well suited for filtering fine dust to guaranteed levels of  $< 3 \text{ mg/Nm}^3$  and for use in combination with sorptive processes to reduce pollutants. Comprehensive process know-how, many years of practical experience and continuous optimization of the components and processes all speak for Scheuch's expertise.



## Bag filters

Scheuch fabric filters are characterized by high levels of plant availability, low operating costs and by easily implemented inspection and maintenance procedures. A modular system and parametric variant modeling make it possible to specifically dimension and optimally adjust the filtration plant — from a few thousand to as much as several million cubic meters.

We have supplemented our filter program for these applications with several design details in order to ensure leak tightness and avoid deposits in the system. Other key factors for high availability and low operating costs also include the choice of the correct filter medium and a system that controls the filter cleaning process depending on boiler load fluctuations.

## Sorption Processes

For the energetic utilization of treated and contaminated fuels, as well as waste and residual materials, Scheuch has developed its own adsorption and absorption methods. These are used to clean acidic exhaust gases ( $\text{SO}_2$ ,  $\text{HCl}$ ,  $\text{HF}$ ) and other gaseous substances such as heavy metals, dioxins and furanes.

### Dry sorption

- With calcium hydroxide
- With sodium bicarbonate

### Conditioned dry sorption

- With gas conditioning towers
- With direct moistening of the recirculated material

When choosing the method, equipment and disposal costs have to be considered in the profitability analysis as well as the costs for spare parts and maintenance.

# YOUR RELIABLE PARTNER

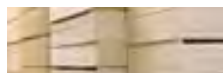
■ With our qualified employees, we offer our customers a single source solution — from consulting and project planning to production, assembly, commissioning, service and emissions testing. This makes it possible to assure not only on-time delivery, reliable compliance with guaranteed values and efficient project handling without interface problems, but to also ensure competent customer service even after commissioning is complete.



WOOD PROCESSING  
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WOOD BASED PANEL  
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METALS INDUSTRY



INDUSTRIAL MINERALS  
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