



Catalytic Emission Control for Industrial Applications

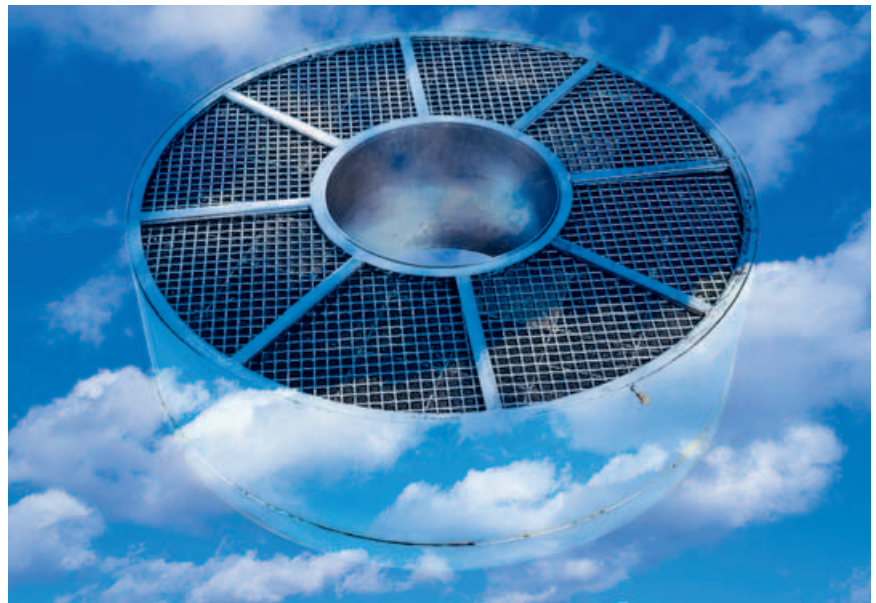
Industrial Exhaust Gas Treatment

Industrial exhaust gas can contain various organic compounds, e. g. chemical by-products, solvents or odours. These volatile organic compounds (VOCs) or hydrocarbons (HC) are emitted during various industrial processes and need to be eliminated. Some applications also require a decomposition of nitrogen compounds such as NO_x , N_2O and NH_3 .

The economical advantage of low operating costs and less stress on equipment materials of construction, compared to alternative technologies, makes catalytic incineration the smart choice for many plants.

For any given oxidation reaction, catalytic incineration allows the oxidation process to take place at a lower temperature than with thermal oxidation, saving operating costs.

Süd-Chemie's extensive EnviCat® product line of standard and customised catalysts are available in both spherical and honeycomb forms. Using precious metals or

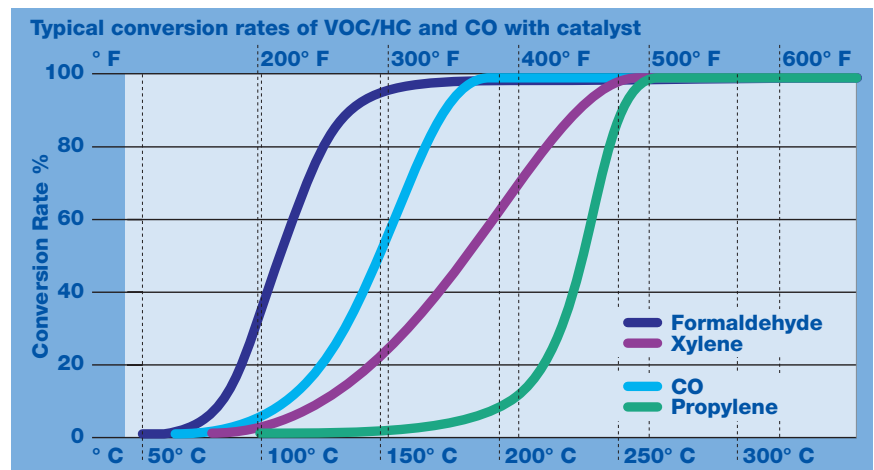


base metals as active components, a wide variety of applications are covered by the vast range of Süd-Chemie products.

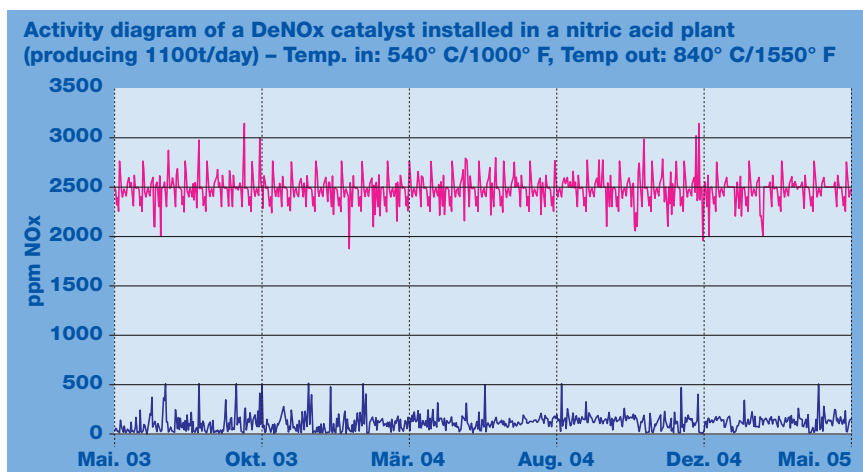
Our flexibility in manufacturing allows us to customise the catalyst according to the specific demands of various applications and equipment design.



Monoliths or spheres – our experienced staff helps you choose the right catalyst to ensure your air permit compliance.



Application...Examples.....Typical pollutants	Application...Examples.....Typical pollutants
Basic chemicals VOC, CO <ul style="list-style-type: none"> ▶ Formaldehyde ▶ Acetaldehyde 	Food Industry VOC, CO <ul style="list-style-type: none"> ▶ Food-grade CO₂ (purification) ▶ Exhaust gas: restaurants, char-broiling, coffee roasting (odour decomposition)
Polymers & Plastics (Petrochemical Industry) VOC, CO, NO _x , N ₂ O <ul style="list-style-type: none"> ▶ Styrene ▶ Phenol ▶ Terephthalic Acid (PTA) ▶ Phthalic/Maleic Anhydride (PA/MA) ▶ Acrylonitrile (AN) ▶ Methyl Methacrylate (MMA) ▶ Acrylic Acid (AA) ▶ Caprolactam ▶ Adipic Acid 	Refining Industry: CO, NO _x <ul style="list-style-type: none"> ▶ Hydrogen (H₂) Plants ▶ Fluid Catalytic Cracking (FCC) Plants ▶ Gas-to-liquid, Biomass-to-liquid, Coal-to-liquid (GTL/BTL/CTL)
Fertilizer Production CO, NO _x , N ₂ O, NH ₃ <ul style="list-style-type: none"> ▶ Nitric Acid 	Other industries and appliances: VOC, CO <ul style="list-style-type: none"> ▶ Printing, packaging, coating and laminating ▶ Pharmaceutical industries ▶ Paint booths ▶ Wood processing, panelboard, furniture manufacturing – Formaldehyde, Methanol ▶ Metal decorating, coil coating, wire enamelling ▶ Wood stoves and gas heating appliances ▶ Kitchen oven (smoke eliminators)



Services

- ▶ Catalysts activity testing in our test labs to optimize operation time
- ▶ Cleaning and rejuvenating of catalysts
- ▶ Mobile pilot plants
- ▶ Recycling of spent catalysts



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