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Industrial Chimney with Minimum Emission

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Abstract: *The industrial gas sector is a crucial component of modern manufacturing and energy systems, but its production and utilization often contribute to environmental pollution. This capstone project explores innovative methods for producing industrial gases with minimal pollution, focusing on reducing emissions, energy consumption, and waste in the gas production process. Key industrial gases such as hydrogen, oxygen, nitrogen, and carbon dioxide are widely used in various industries, but their production processes frequently involve fossil fuels, leading to harmful greenhouse gas (GHG) emissions and air pollution.*

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By minimizing emissions and optimizing resource use, this project aims to provide a more environmentally friendly model for the industrial gas industry, aligning it with global sustainability goals. The findings from this project will contribute to cleaner production technologies and support industries in reducing their environmental footprint without compromising efficiency or cost-effectiveness.

This project has the potential to significantly lower the environmental impact of industries dependent on industrial gases, leading to cleaner air and a reduction in GHG emissions.

Keywords: Industrial pollution control, Advanced filtration design, flue gas treatment, Eco- friendly stack.