

# ZEECO CS5 AND HYDROGEN CS5 ClearSign PROCESS BURNERS

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## INDUSTRY LEADING NO<sub>x</sub> EMISSIONS REDUCTION

ZEECO® and ClearSign Technologies are achieving industry-leading NO<sub>x</sub> emissions reductions with their co-branded line of process burners. With the ability to fire conventional refinery fuels and hydrogen, the ZEECO CS5 and Hydrogen CS5 process burners achieve sub 5 ppm NO<sub>x</sub> emissions, meeting some of the world's most stringent emissions regulations.

## ZEECO CS5 AND HYDROGEN CS5 PROCESS BURNERS

Powered by ClearSign Core™ Technology, the ZEECO CS5 and Hydrogen CS5 burners are an unparalleled solution for achieving selective catalytic reduction (SCR) level emissions at a fraction of the cost. With its compact flame, reduced operating expenses, and large fuel ports, the ZEECO CS5 delivers optional NO<sub>x</sub> reduction without the need for additional SCR equipment.

## ACHIEVE ENVIRONMENTAL COMPLIANCE WITHOUT SELECTIVE CATALYTIC REDUCTION

|                             | SCR                   | CS5                   |
|-----------------------------|-----------------------|-----------------------|
| NO <sub>x</sub> Performance | <5ppm NO <sub>x</sub> | <5ppm NO <sub>x</sub> |
| Installation Period         | >6 Weeks              | <1 Week               |
| Plot Space Requirement      | Significant           | None                  |
| Catalysts & Chemicals       | Significant           | None                  |
| Capital Costs               | High                  | Low                   |
| Operating Costs             | High                  | Low                   |

## DEVELOPING INNOVATIVE SOLUTIONS TOGETHER

Since its founding in 1979, Zeeco has relied on its spirit of innovation and commitment to excellence to overcome any challenge. As the world leader in advanced combustion and environmental solutions, Zeeco continues to look for new ways to bring new technologies to market that help its customers meet emissions regulations while ensuring the safety and reliability of plants and facilities around the world. Zeeco first began its collaboration with ClearSign in 2020 to further develop its unique process burner technology. Over the years, the collaboration has resulted in a revolutionary burner line that meets some of the world's most stringent NO<sub>x</sub> emissions regulations. Today, that collaboration has grown into a co-branded line of process burners, bringing ClearSign's Core Technology and Zeeco's expertise in the combustion industry to the global market.

