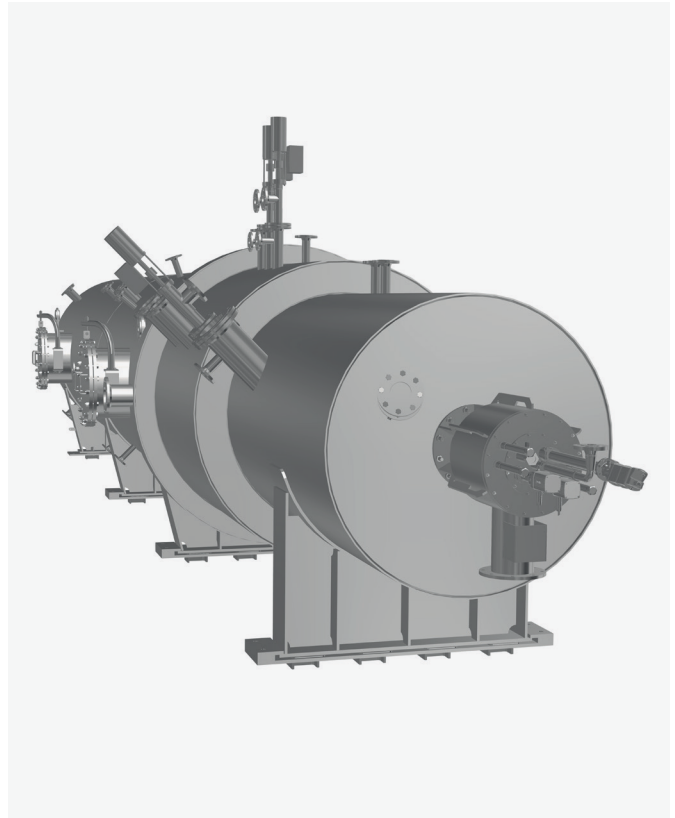
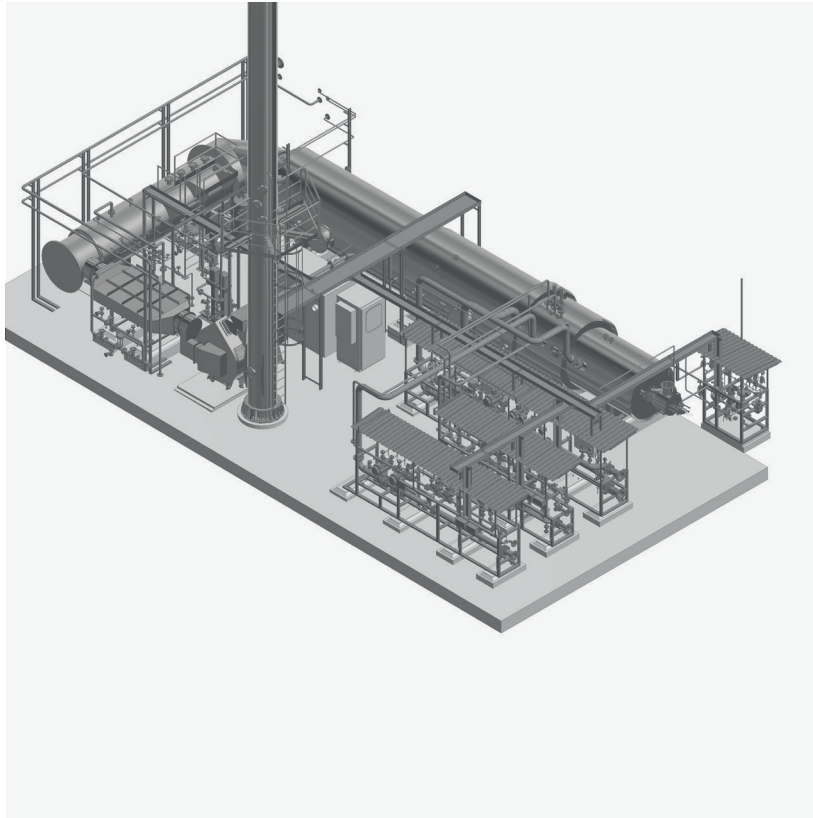


YOUR EXPERTS FOR BURNERS AND COMBUSTORS



AMONOX®

AMONOX® is an innovative, low NOx process developed by CS Combustion Solutions for the direct combustion of ammonia in industrial incinerators, with the aim of replacing fossil fuels and decarbonising existing processes.

Ammonia (chemical formula NH_3), is an excellent hydrogen carrier. It can be transported and handled comfortably as it is already used in a wide range of applications.

Many people think that ammonia is potentially very dangerous because it is toxic. However, the fact is that no or very few serious accidents occur when handling ammonia, as it is very quickly detectable by its pungent smell in the event of a leak.

Because of this, NH_3 is a very serious alternative to fossil fuels.

The greatest challenge in the direct combustion of ammonia is the nitrogen bound in it and the resulting formation of nitrogen oxide.

CS Combustion Solutions has developed an innovative, compact process for reducing NOx generation to an economical and climate-tolerant level. Here, the possibilities of sub-stoichiometric or multi-stage combustion, staged fuel injection and the use of the fuel as an NOx reducing agent are used in a very ingenious combination.

By using green NH_3 generated by renewable energies such as wind power, hydropower or photovoltaics, the process gets a green footprint and is thus independent of fossil fuels, while not emitting any climate-damaging CO_2 .

YOUR EXPERTS FOR BURNERS AND COMBUSTORS



AMONOX® is one among innumerable ways to get closer to the goal of zero emissions.

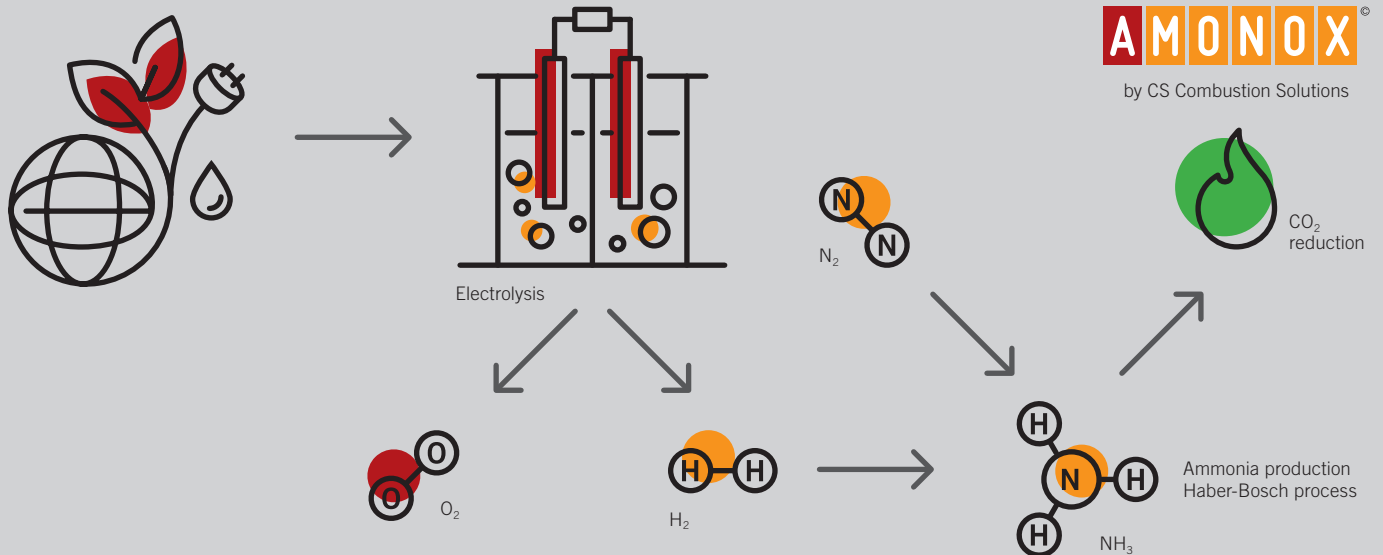
To ensure the greatest possible flexibility, the process is designed to be H₂ ready and can easily be switched to pure hydrogen or mixed operation at any time.

AMINOX® is a further development of the AMONOX® process for recycling all amines (derivatives of NH₃ with linked alkyl groups) as alternative fuels, rather than having them accumulate as waste. The aim of this process is to use the nitrogen amines, whose

structure and properties are very diverse, thermally with low NO_x. The objective is to use the large number of chemical compounds with one or more nitrogen atoms, different viscosities and other properties efficiently and specifically as an energy source with one system, instead of having third parties dispose of them at high cost in the traditional way.

NH₃ TO HEAT

#decarbonization #H₂-ready



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your experts for burners and combustors