

100%

HYDROGEN

95%

EFFICIENCY

Zero

EMISSIONS

SOLUTION

From a first-principles perspective, the DCC™ process is the most efficient way to convert H₂ and O₂ into industrial steam, heat, and power

The zero-emissions DCC boiler is a bold step in the evolution of hydrogen technology. This break-through innovation eliminates the smokestack from industrial boiler installations, solving critical permitting constraints at many sites. The DCC makes heat and power available in highly regulated environments, including many urban areas.



Dynamic Combustion Chamber

DCC™ Key Performance Parameters:

- 6,000 kg/hr steam
- 1MWe power output
- 95% fuel efficiency

For more information visit:

www.exogen.energy

PERFORMANCE

SPECIFICATIONS TABLE	DCC 3000	DCC 3000 HP	DCC 6000 HP
Steam output, kg/hr	3,000	3,000	6,000
Heat output, KW/hr	2,600	3,100	6,200
Outlet pressure, Bar	11	40	40
Steam temperature, °C	200	300	300
H ₂ fuel consumption, kg/hr	62	62	123
O ₂ fuel consumption, kg/hr	496	496	984
Dimensions (L x W x H)	8 x 5 x 7	8 x 5 x 7	8 x 5 x 7

Source: Jericho Energy Ventures

By combining pure Hydrogen and Oxygen in an exothermic reaction, the DCC™ achieves previously unattainable fuel efficiencies in the range of 95-98%. It is a closed-loop system with no smokestack that is free of all current air and emission regulations.

This adds up to a boiler that produces high-quality process steam at prices that compete with best-in-class natural gas boilers.

High-quality, clean process steam is largely consumed and utilized in Commercial, Industrial and Power end-market applications.

The highly energetic process steam is capable of turning a turbine genset before being distributed for its standard applications.

There are two fundamental issues with traditional fossil-fuel boiler systems used in commercial, industrial, and power end-markets ("CI&P").

First, the greenhouse gasses ("GHG" such as CO₂, NO_x, and SO_x) from these coal, natural gas, diesel, and oil-fired systems contribute heavily to the world's ever increasing GHG emissions profile.

And second, the current installed base of CI&P boilers are largely aged and inefficient – with efficiencies as low as 50% on 40+ year old equipment. Meanwhile, new product offerings fail to fully address the inherent inefficiencies, cost and emissions related issues.

Hydrogen Technologies developed the DCC™ from a clean sheet of paper to be the boiler of the future.