

safety POWER

clean essential energy



ecoCUBE®

Global Emissions Compliance

ecoCUBE® with SCR, DPF, DOC & Silencer



ecoCUBE® Simplifying Emissions Compliance

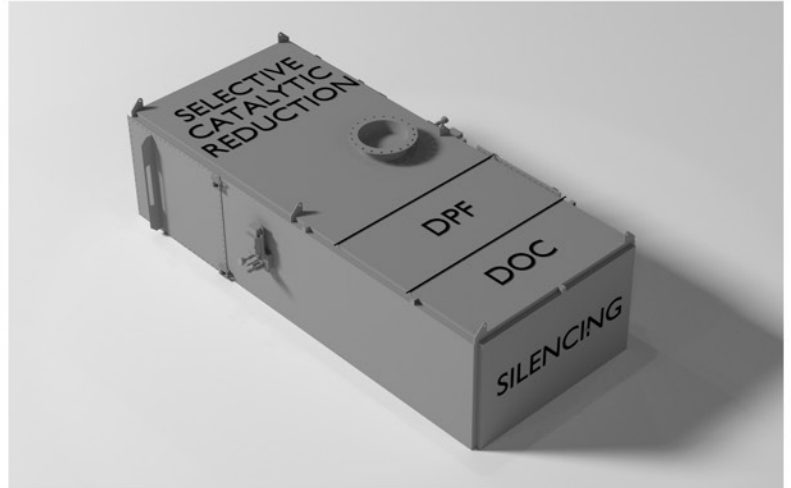
SCR and Silencing in one ecoCUBE®

If required add DOC, DPF to the same box

ecoCUBE® - a Much Simpler Approach

The ecoCUBE® Advantage

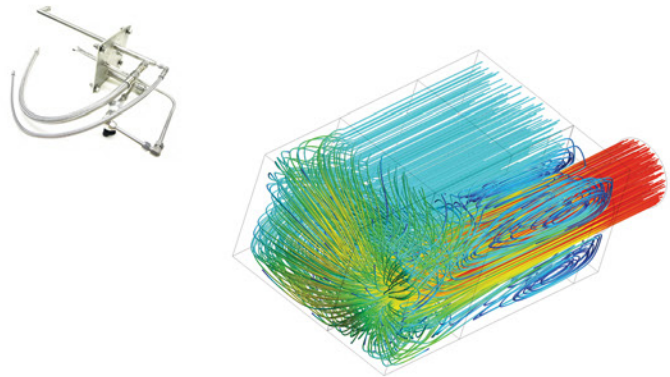
- Fully Compliant Tier 4f & Euro Stage IV Solution
- Up to 98% NO_x Reduction
- Optional DOC & DPF Integration
- Silencing up to 52 dBA Reduction
- Low Pressure Drop, Options from 6" WC
- Highly Customizable Inlet & Outlet locations
- Floor, Ceiling or Container Mounted Options
- Easy Addition to almost any Engine
- Ideal for Stationary, Marine and Non-Road Mobile Applications



Highly Optimized Design

The ecoCUBE® has been designed using Computational Fluid Dynamics (CFD) to ensure that performance is maximized and costs are minimized. This highly optimized design distributes exhaust gasses evenly over the catalyst surface creating an extremely high NO_x reduction with less catalyst.

The ecoCUBE® has a unique design that allows the integration of an optional Diesel Particulate Filter (DPF) and Diesel Oxidation Catalyst (DOC) in addition to the Selective Catalytic Reduction (SCR) unit. Silencing can also be added to the ecoCUBE®. All of these optional components are contained within the same geometry making it easy to allocate project space.



Versatile, Compact & Economical

The ecoCUBE® has customizable inlets and outlets. In addition the ecoCUBE® can be roof mounted, ceiling mounted or vertically mounted making it easier to integrate into your Data Center, Hospital or other installation.

If you have a specific space constraints please contact Safety Power, we will likely be able to accommodate your requirements.

The innovative design approach of the ecoCUBE® allows it to take less space than conventional designs.



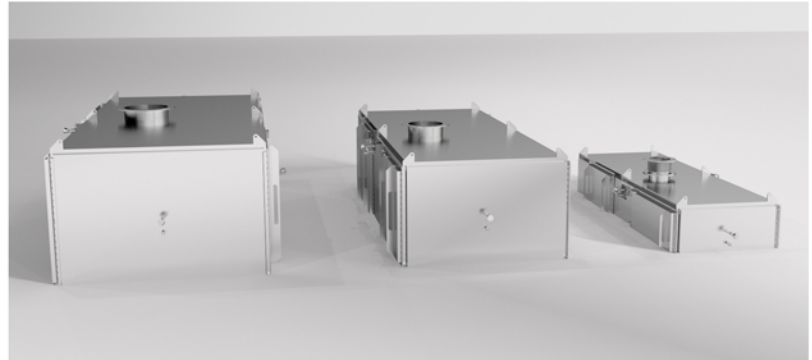
* Safety Power has been able to achieve NO_x reductions of up to 98% on a 2.5MW Tier 2 engine.

ecoCUBE® - an Advanced Design that Delivers Tier 4f Compliance

Meet the ecoCUBE® Family

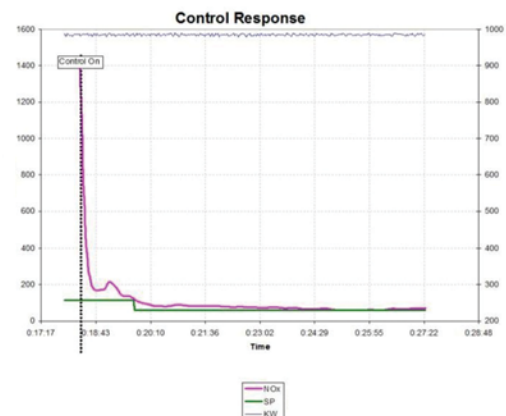
The design of the ecoCUBE® is highly scalable. The same optimized design works for engines ranging from 500 kW to 10 MW. This unique scalability provides a substantial cost reduction, as customization is avoided.

The ecoCUBE® family has a large installed base that has demonstrated reliability and 3rd party verified Tier 4f compliance.



Advanced Model Based Control with NO_x Sensor

The ecoCUBE® has a highly robust advanced model based predictive controller. This proprietary control algorithm accurately models the chemical reactions on the catalyst delivering industry leading response times. The graph on the right side demonstrates the effectiveness of the ecoCUBE® on a customer installation; NO_x levels after injection are reduced over 95%. The design uses two NO_x sensors with a patented gas extractor to ensure compliance and provide logged data for customers.

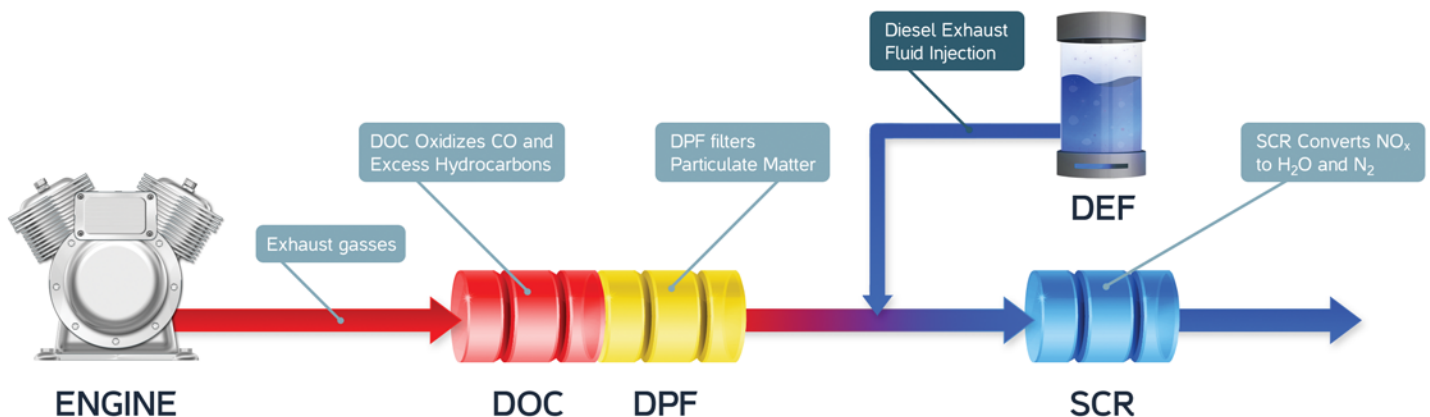


With an optional pre-heat system the ecoCUBE® SCR system can become active in less than 5 minutes.

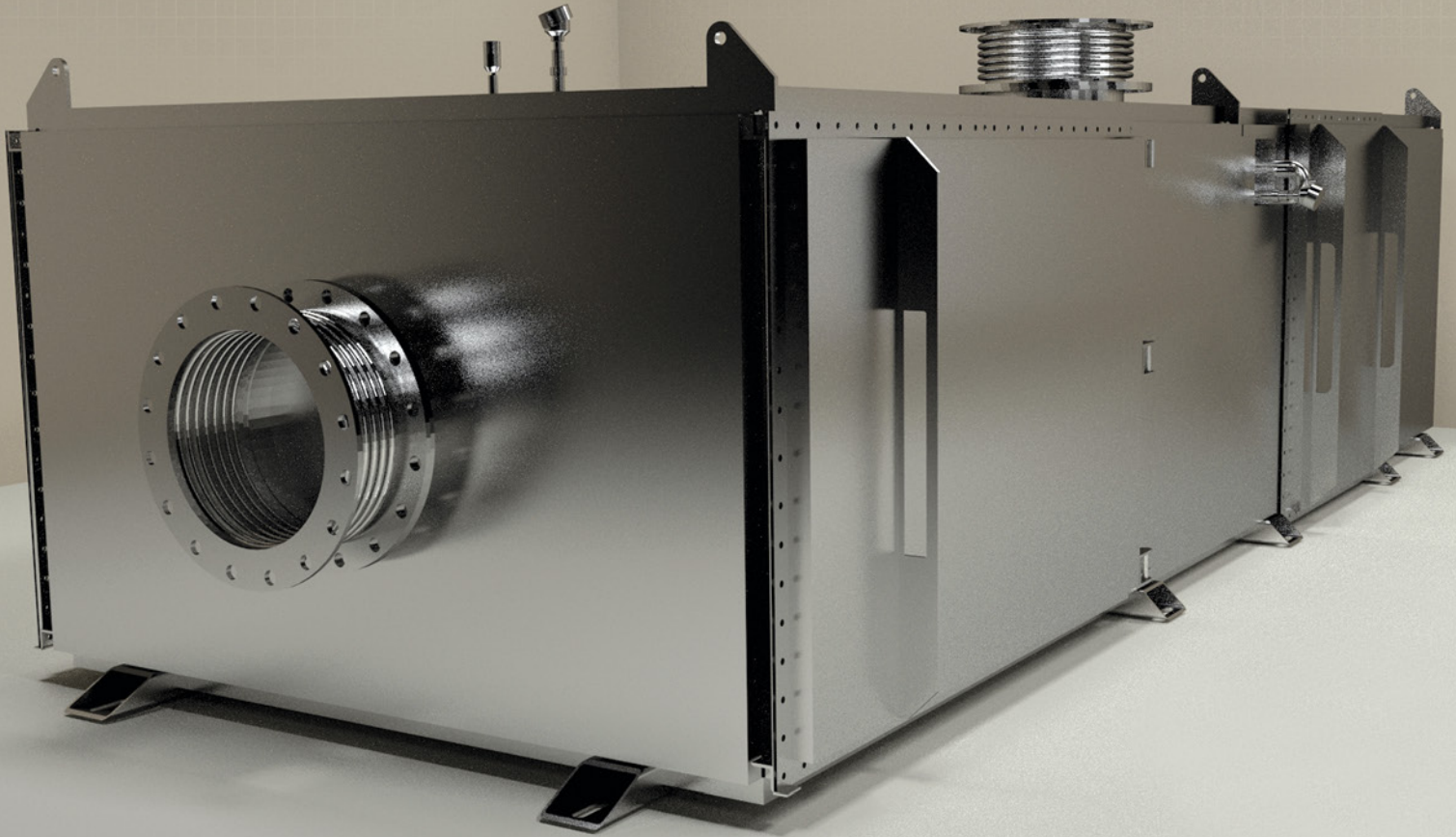
ecoCUBE's® with the DPF module also have an innovative pressure relief valve system that does not require expensive active regeneration systems.

Selective Catalytic Reduction (SCR) and Diesel Emissions

The ecoCUBE® utilizes an SCR to achieve Tier 4f NO_x compliance. The SCR is a catalytic process that uses urea to transform NO₂ into harmless Nitrogen Gas (N₂) and water vapor (H₂O). The optional Diesel Particulate Filter (DPF) and Diesel Oxidation Catalyst (DOC) are used to remove Particulate Matter (PM), Carbon Monoxide (CO) and other excess Hydrocarbons; depending on the engine these modules may be required to achieve Tier 4f compliance.



ecoCUBE® with SCR, DPF, DOC & Silencer



Safety Power is the global innovator in emissions control for large scale diesel and natural gas engines.

The company manufactures the ecoCUBE® range of products that reduce NO_x, CO and Hydrocarbon emissions on engines from 500kW up to 10MW and beyond.

For more information please contact info@safetypowerinc.com



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