



CERACOMB

Ceramic Honeycomb Products

We Create cleaner world with advanced technology

Ceracomb will continue its effort to
make clean world to improve our quality of life
by ceaseless development of new material

Company profile

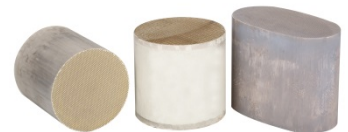
Introduction



Manufacturing the best quality
Ceramic Honeycomb



Offering the most suitable
Engineering & Solutions



Excellent Catalyst and
Its Coating Technologies

Ceracomb will offer you the best service with the best technology related to air pollution prevention materials

1. Know-How accumulated over 30 years in Ceramic extrusion fields
2. World best qualified Ceramic Honeycomb structure
3. Air pollutant treatment expert such as Automotive & marine emission, Industrial air pollutant, waste odor etc.
4. Most suitable solution for VOC gas removal on the basis of Know-how accumulated in industrial fields over 20 years
5. Most stable catalytic quality & competitive price by the process unification of catalyst substrate & catalytic material

History

- ✓ **1987** Established honeycomb division in Dong Su Industry, Hyundai subsidiary
- ✓ **1989** Start-up of the first commercial production of ceramic honeycomb for the catalyst substrate & metal filter
- ✓ **1990** Supplied automotive ceramic honeycomb (GM. Allied Signal)
- ✓ **1992** Start-up of the first commercial production of catalyst products for Cooking device, VOC
- ✓ **1999** Separated from Dong Su Industry
- ✓ **2001** Change company name to Ceracomb Co., Ltd.
- ✓ **2002** Acquisition of ISO 9001 Certificate
Establishment of R&D Center
- ✓ **2004** Involved SMAQI(Seoul Metropolitan Air Quality Improvement) project planned By KMOE (Korean Ministry of Environment) with DOC(Diesel Oxidation Catalyst) Converter
- ✓ **2005** Technical tie-up of odor removal catalyst with Kobelco
- ✓ **2008** CM-PDPF(Partial DPF) Module certified by KMOE and start to supply for SMAQI project
- ✓ **2009** CH-PDPF & CC-PDPF Module certified by KMOE and start to supply for SMAQI project
- ✓ **2011** Develop Active DPF system for diesel vehicle
- ✓ **2012** Acquisition of Q level for KHNP(Korea Hydro & Nuclear Power Co., Ltd.), supplying PAR for 18 sites, Active DPF system certified by KMOE and start to supply for SMAQI project
- ✓ **2013** TS 16949 / ISO 14001 certificate
- ✓ **2014** Develop PM-NOx after treatment system for diesel vehicle
- ✓ **2015** PM-NOx after treatment system certified by KMOE and start to supply for SMAQI project
- ✓ **2017** Acquisition of AIP for KR

Certificate



ISO 14001



ISO 9001



TS 16949



AIP Certificate for KR



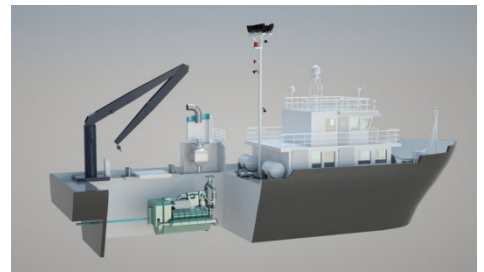
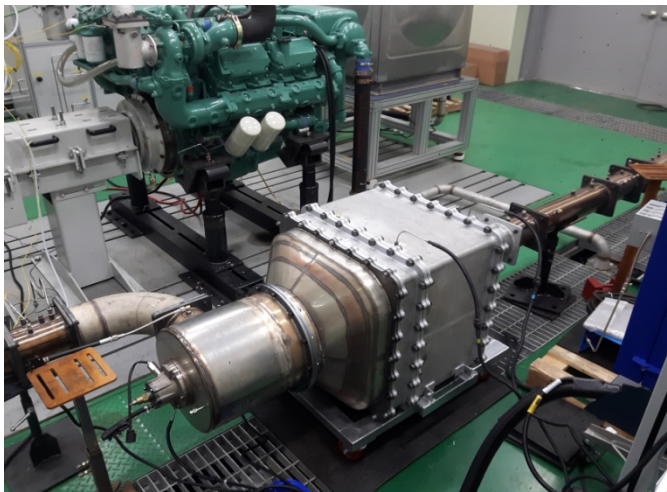
KHNP Q level Quality Certificate

Outline

Company	Ceracomb CO.,Ltd
Establishment	June 24, 1999
Address	46-5, Oncheon-daero 1122beon-gil, Asan-si, Chungcheongnam-do
Tel / Fax	Tel : +82-41-531-0657 / Fax : +82-41-531-0657
Website	http://www.ceracomb.com
Main items	DPF system, SCR system, Ceramic honeycomb substrate, Catalytic converter

Marine exhaust gas treatment system

Hybrid DPF system

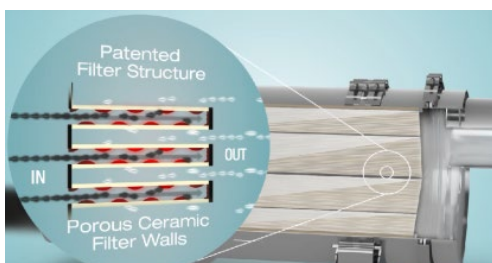


● Outline

Hybrid DPF system can reduce more than 98% of Soot and regenerate at low load conditions by forced Regeneration method diesel burner.

● Characteristics

1. Available for low load-load vessels which have low exhaust temperature
2. Passive regeneration is possible through catalytic reaction at high load conditions
3. Easy to install and maintain



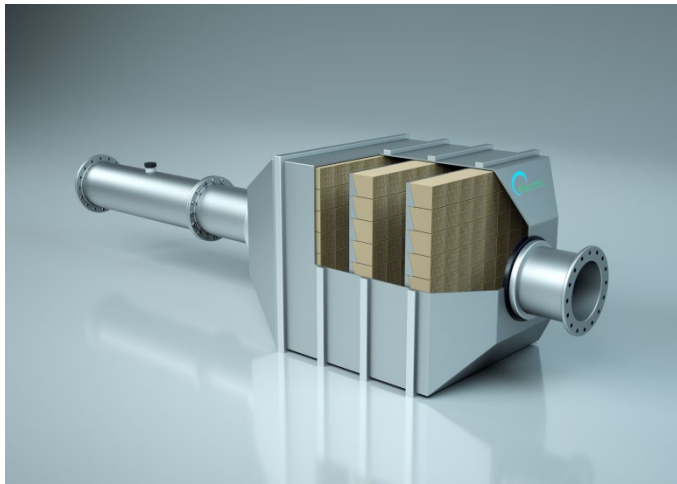
Catalytic regeneration(Passive)



Burner regeneration(Active)

Marine exhaust gas treatment system

SCR system



● Outline

SCR system removes NO_x from vessels. In the SCR process, NO_x reacts with the ammonia, which is injected into the exhaust gas stream before a SCR catalyst. SCR catalyst converts NO_x into N_2 and H_2O .

● Components

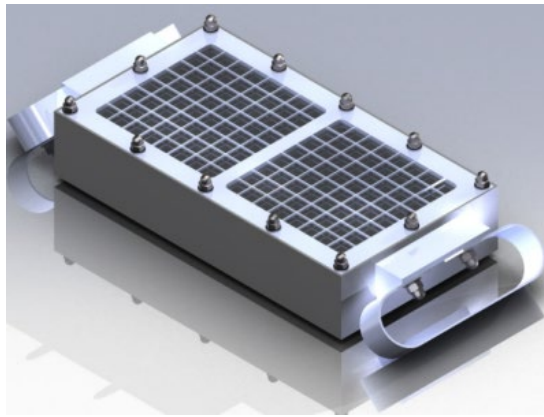
1. Catalytic filter : SCR, AOC
2. Urea dosing system : Urea tank, Dosing pump, Nozzle, DCU

● Characteristics

High No_x removal performance Due to excellent catalyst use

Marine exhaust gas treatment system

Submarine H2 Eliminator



● Outline

This device makes natural convection of hydrogen-oxygen Gas which get rid of hydrogen Without pan or blower.

Hydrogen-catalyst reaction Produces natural convection By temperature gap,
Using natural convection, Hydrogen get into the Submarine H2 eliminator

● Reference

Supplied to 4 submarines

JANGBOGO III supply contract 40 ships (2016~2019 year)

● Characteristics

1. Hydrogen removal from low concentration to high one
2. Short reaction time
3. Honeycomb shape which is for superior air permeability
4. Easy replacement
5. Strong chemical resistance about Aerosol, VOCs CO, and other chemical



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