

VOLCANO launched the new Gas Combustion Unit

for Ammonia Fueled Vessel "MECS - N25"

VOLCANO launched the new Gas Combustion Unit for Ammonia Fueled Vessel "MECS-N25" *1 on May 25th, 2023.

The new product "MECS-N25" is developed for Ammonia fueled vessel, as a variation of the gas combustion unit (GCU) = "MECS-GCU", which is installed in LNG tag boats, LNG bunkering vessels and the other kind of vessels.

Regarding to the utilization of ammonia as next generation fuel for climate change

mitigation, "MECS-N25" processes ammonia gas safely and compliantly. It combusts ammonia at the rate of 70kg/h. As a new product development subsidized project of the Japan Ship Machinery and Equipment Association (JSMEA) *3, this product was developed with a subsidy from the Nippon Foundation *2.



Photo; an outline view of gas combustion unit "MECS-GCU"

Ammonia (NH $_3$) contains the problem of toxicity. "MECS-N25" solves this toxicity problem by combusting ammonia and detoxifying it safely. Ammonia gas mixed with inert gas (N $_2$) is extruded through pipes during purging and fuel loading/unloading in the tank. The extruded ammonia gas mixed with inert gas cannot be combusted easily. By combusting the mixed gas, "MECS-N25" can suppresses the emission of ammonia to the inside and outside of the ship. VOLCANO is researching the market situation of ammonia utilization and would add the various size of "MECS-GCU" for ammonia fuel. VOLCANO will keep providing products which contribute to environmental loading reduction.



https://www.volcano.co.jp/



Press Information

[For reference, Outline of specifications of MECS-N25]

TYPE; MECS-N25

Combustion rate; ammonia 70kg/h

Dimension; Length=2,530mm Width=926mm Height=2,015mm

(The specification in detail has not been disclosed.)

- *1 "MECS" is named as "Marine Evolutional Combustion System".
 - "MECS-GCU" is the name consisting of "MECS" and "GCU".
 - "GCU" means gas combustion unit.
- *2 The Nippon Foundation

https://www.nippon-foundation.or.jp/



*3 The Japan Ship Machinery and Equipment Association (JSMEA)

http://www.jsmea.or.jp/