

SUBMERGED COMBUSTION VAPORIZER Compact system has rapid response time for start-up and shut-down.

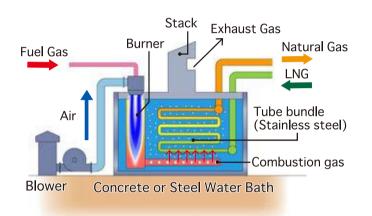
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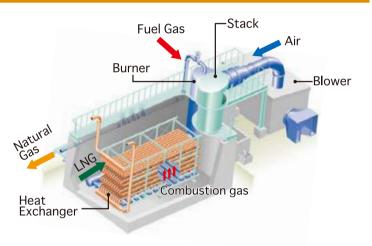
Outline

In the Submerged Combustion LNG Vaporizer (SCV), hot water heated by the submerged combustion burner vaporizes the LNG in the stainless steel tube bundle. SCV is used for not only base load vaporization but also peak shaving or emergency operations. Due to large heat capacity of the water bath. SCV provides rapid response time for start-up, shut-down and rapid load fluctuation.



SUBMERGED COMBUSTION VAPORIZER





Features

Compact Design

Seawater channels, drainage channels, and other large facilities are unnecessary because seawater is not used, and the utility equipment construction cost can be reduced as a whole. Combustion gas is injected through the sparge pipe holes into the bath water creating frothing two-phase mixture. The two-phase frothing flow through the tube bundle efficiently scrubs the tube surface, ensuring very high heat transfer coefficient as well as a very compact design.

High Thermal Efficiency

SCV can achieve very high thermal efficiency, approaching 100%, in HHV basis, due to low bath water / exhaust gas temperature.

High Reliability

All parts in contact with LNG are made of stainless steel with excellent corrosion resistance and strength in cryogenic use. 304L and 316L low-carbon stainless steels that hardly cause stress corrosion or intergranular corrosion are used for the tube bundle. The simple structure permits easy maintenance.

Easy Operation

Quick start-up and shut-down is possible, and the load can be changed rapidly from 10 to 100% to cope with the change in demand.

Environmental Friendliness

Environmentally friendly design has been adopted to ensure ultra low NOx and CO emission.