

## 环保装备

Environmental Protection Equipment

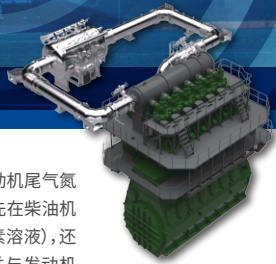
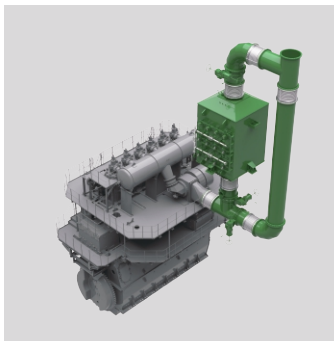
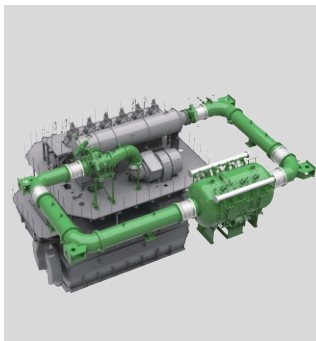
HeNox | CPGC

### 选择性催化还原装置SCR

Selective Catalytic Reduction

选择性催化还原 (SCR) 是一种高效的船舶发动机尾气氮氧化物 (NOx) 净化技术, 其主要净化过程如下: 首先在柴油机排气系统中喷入适量的还原剂 (通常是40wt.%尿素溶液), 还原剂在废气余热作用下迅速发生分解生成NH<sub>3</sub>, 并与发动机废气充分混合; 混合后的废气流入装有脱硝催化剂的反应器中, 在催化剂的作用下, 废气中的NOx与NH<sub>3</sub>发生反应转化成为N<sub>2</sub>和H<sub>2</sub>O, 从而实现NOx净化。

Selective Catalytic Reduction (SCR) is an effective technology for removing the NOx emitted from marine engine. The main reduction process is as follows: firstly, certain amount of reducing agent (usually 40wt.% urea solution) is injected into the exhaust pipe and then quickly decompose into NH<sub>3</sub> with the heat of exhaust gas; after fully mixed with NH<sub>3</sub>, the exhaust gas then flow through the reactor with catalyst installed; with the effect of catalyst, the NOx could be quickly eliminated and converted into N<sub>2</sub> and H<sub>2</sub>O by reacting with NH<sub>3</sub>.



### CPGC EGCS脱硫系统

CPGC Egcs Desulfurization System

## 总体介绍 Product Description

CSPI废气脱硫系统可以有效解决船舶尾气硫排放问题, 满足IMO的排放法规, 根据脱硫剂以及循环方式的不同分为开式、闭式以及混合式三种类型。

The CSPI exhaust gas cleaning system can effectively solve the problem of ship tail gas sulfur emissions and meet the IMO emission regulations. It is divided into three types: open loop, closed loop and hybrid loop according to different desulfurization agents and circulation methods.

## 主要参数 The Main Parameters

性能指标: 3.5% → 0.1% (满足法规排放要求)

Performance index: 3.5% → 0.1% (meeting regulatory emission requirements)

海水用量 (开式): <60m<sup>3</sup>/MW·h

Seawater consumption (open loop): <60m<sup>3</sup>/MW·h

淡水用量 (闭式): <0.1m<sup>3</sup>/MW·h

Fresh water consumption (closed loop): <0.1m<sup>3</sup>/MW·h

碱液用量 (闭式): <20L/MW·h

Alkaline solution consumption (closed loop): <20L/MW·h

废渣量 (闭式): <20L/MW·h

Sludge output (closed loop): <20L/MW·h

系统压损: <1000pa

System pressure drop: <1000pa

