



# TECNOCRYO



## LNG VAPORIZERS CWX Series

### MAIN FEATURES

#### Performance data

##### Tube side

Fluids	LNG
Flow	Up to 6000 kg/h and more
Pressure	up to 450 bar
Temperature range	-196° / +65°C
Inlet temp.	-155°C toll.-/+5°C
Outlet temp.	+45°C toll.-/+5°C

##### Shell side

Fluids	Water or Water-Glycol
Flow	from 50 to 130 m <sup>3</sup> /h
Pressure	up to 10 bar
Temperature range	-20° / +65°C
Inlet temp.	between 70°and 80°C
Outlet temp.	between 70°and 80°C

Ambient temperature	-20°C/+45°C
Ambient conditions	Salty, Marine enviroment
Service conditions	24H service no stop
Vessel material	316L
Coil wound material	316L
Reliability	Thousands of hours without any maintenance

#### Certifications

- American Bureau of Shipping
- DNV-GL
- Lloyd's Register
- Korean register
- RINA
- all other Classes

CNG outlet  
(vaporized gas)

Water-Glycol  
inlet

Nozzle for  
rupture disk

Tube Side  
(LNG to CNG)

Shell Side  
(Water-Glycol)

Body flange  
for maintenance

Water-Glycol  
outlet

LNG inlet  
(from pump)



## TECNOCRYO DESIGN

### Features

Coils-wound in a vessel is one of the most robust and reliable solution for the vaporization of cryogenic liquids such as Nitrogen, Oxygen and LNG. The coils are put together to form a bundle which is installed inside a vessel where the hot liquid flows through. Hot water or water solutions (glycol-water) are usually used as heat transfer fluid with different heat sources like electric power, steam etc.

### Benefits

The coil-wound exchangers are:

- the best solution for discontinuous operations because of their heat capacity reservoir.
- the best solution for compensation of small temperature variation during the service



**In-House  
Cryogenic  
Stabilization  
at -196°C  
With Liquid  
Nitrogen  
relieves the  
residual,  
post-  
fabrication,  
mechanical  
stresses**

- immediately ready to give the full capacity
- easy controllable from reduced flow to full flow in both cold side and hot side
- designed for a lot of applications and can cover a broad range of heat capacity and flow rate

Because of their design, using tubes to form coils and bundle of coils, the CWHE exchangers are very robust since the pressure bearing is delegated to the cylindrical tubes, the easiest and best pressure bearing components. Indeed the coils keep high the elastic capacity when shrinking is imposed by temperature difference, hence the thermal stresses are reset and tube breaks are an unknown event for these exchangers.

