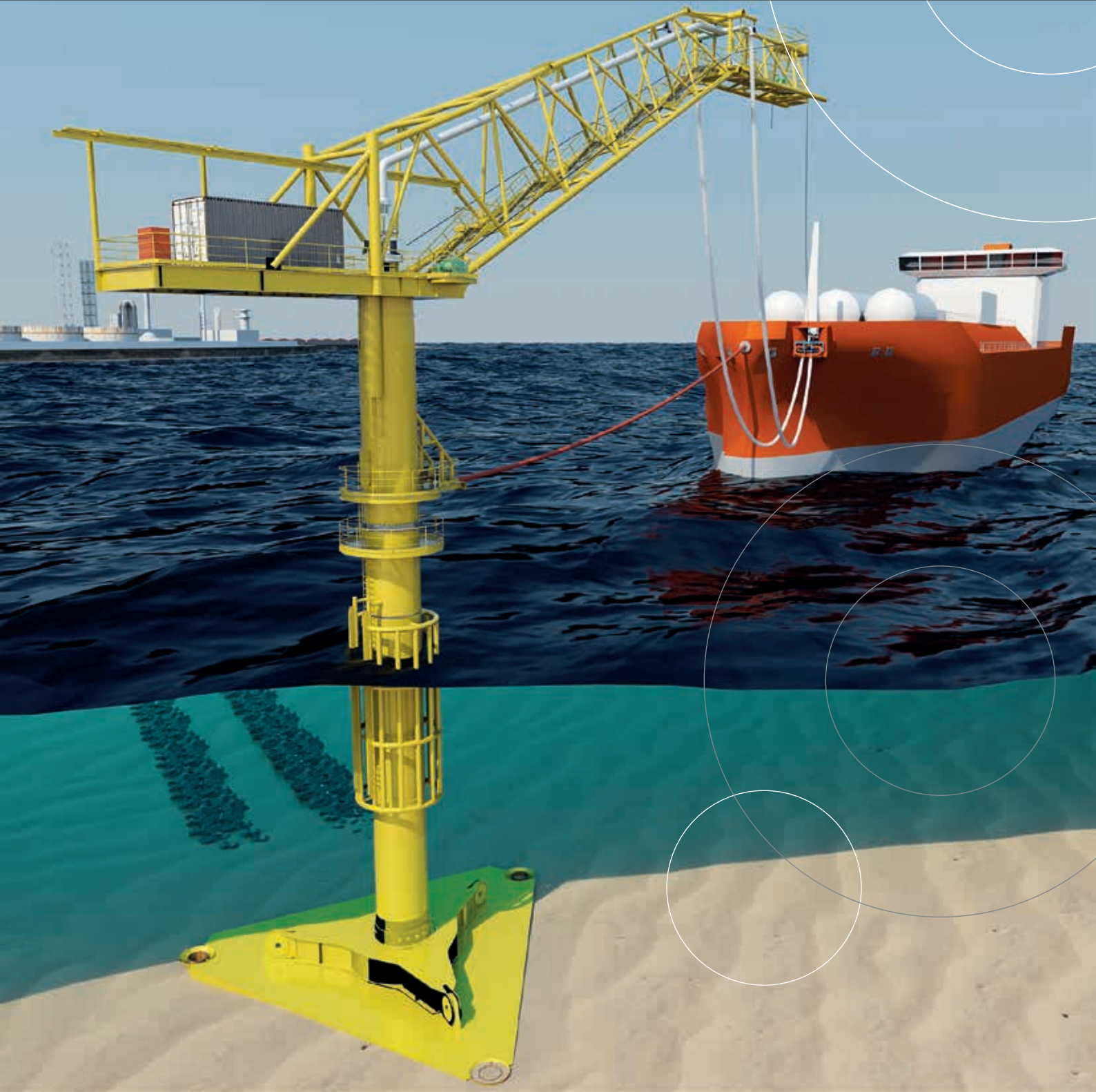


bluewater

# Cryogenic Loading Tower



# Cryogenic Loading Tower (CLT)

*The Cryogenic Loading Tower (CLT) enables single point mooring and (off-) loading any size LNG Carrier of 20,000 up to 266,000 m<sup>3</sup>, without the need for a jetty and breakwaters.*

*The Cryogenic Loading Tower is based on the successful Advanced Loading Tower (ALT) concept which has a proven track record in export of large quantities of crude oil for more than 14 years and has achieved more than 2,000 loading operations.*

*The tower is unmanned and handling of the mooring hawser and aerial cryogenic hoses is fully remote-controlled. A special highly insulated submarine pipeline transport the LNG from/to the shore. A vapour return line can be included. Offloading rates are between 1,000 to 10,000 m<sup>3</sup>/h depending on the number and size of the flexible cryogenic hoses.*

*The CLT outfitting and performance can be adapted to meet specific client requirements.*

## CLT Characteristics

- Near shore LNG (off-)loading terminal
- Suitable for LNG Carriers up to 266,000 m<sup>3</sup>
- Based on field proven Single Point Mooring & LNG technology
- Fully remote-controlled and monitored
- Year round availability
- Accredited by Oil Majors



# Specifications

## Cryogenic Loading Tower

### Cryogenic Loading Tower

<b>LNG Carrier</b>	20,000 up to 266,000 m <sup>3</sup> (larger on request) with bow manifold
<b>Distance tower – LNGC</b>	55 – 75 m
<b>Height above water</b>	About 60 m
<b>Mooring load</b>	250 – 450 mT
<b>Tower yaw/rotation</b>	Unrestricted
<b>Hose &amp; hawser handling</b>	Included and remote-controlled
<b>Boat loading</b>	Included

### Product transfer

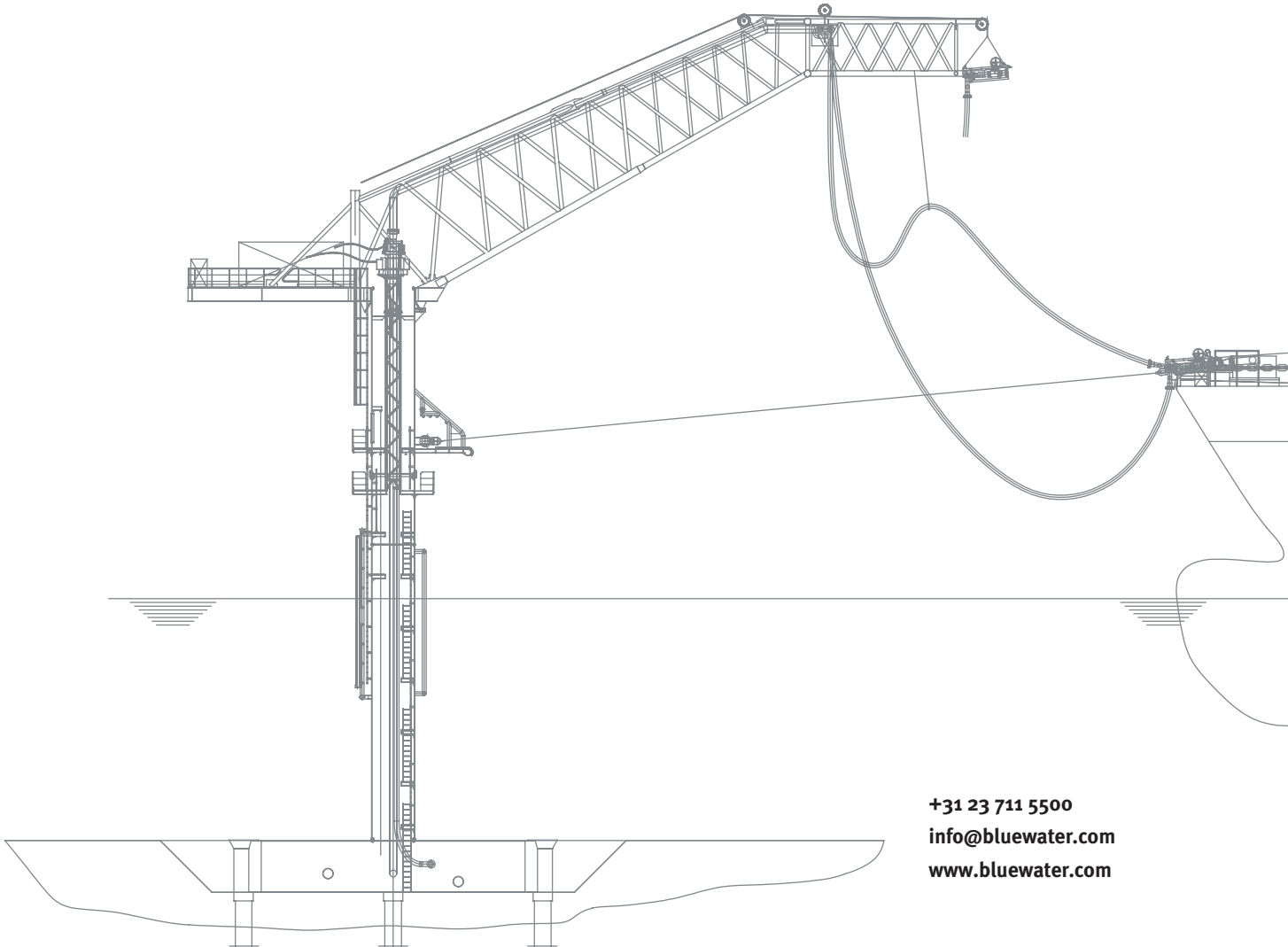
<b>(Off-)loading rate</b>	1,000 upto 10,000 m <sup>3</sup> /h (on request higher)
<b>Temperature range</b>	minus 162°C to ambient
<b>Piping</b>	Loop 150/300 lbs ANSI, vapour return (on request)
<b>Swivel</b>	Single or multipath Bluewater design
<b>Subsea pipeline</b>	Suitable for highly or vacuum insulated pipe-in-pipe (VIPIP)

### Environment

<b>Water depth range</b>	10 – 65 m
<b>Ambient Temperature</b>	– 50°C to +55°C

### Operations

<b>Offloading window</b>	Year round, up to 3 - 4 meter Hs
<b>Control system</b>	Automated valves and process monitoring, including tanker load and condition monitoring
<b>Remote control</b>	Hose & hawser handling, rotation of head



+31 23 711 5500  
info@bluewater.com  
www.bluewater.com