

# MEMBRANE TANK



### INTRODUCTION

TGE has more than 30 years of experience in design, procurement and construction of cryogenic storage facilities and terminals for liquefied gases.

To meet the market demands of higher consumption of Liquefied Natural Gas, TGE as a License Holder of GTT (GST System), is also offering its customers to build tanks using membrane technology up to 320,000 m<sup>3</sup>.

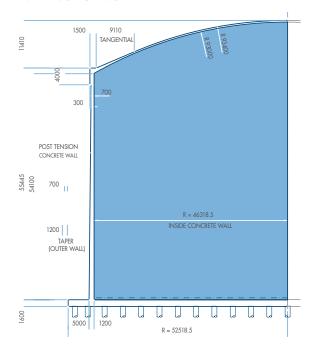
Together with more common solutions using 9% Ni plates, it is the safest, it has no risk of catastrophic containment failure and does not require any impoundment dike but has the additional advantage of no limitation in storage tank capacity, allowing the use of several and more flexible configurations highly attractive for our customers.

## DIMENSIONAL DATA FOR 320,000 m3 MEMBRANE TANK

| Outer Tank Diameter     | ■ 91 m                         |
|-------------------------|--------------------------------|
| Cyl. Shell Height       | ■ 54 m                         |
| Concrete Wall Thickness | ■ 1,200 mm to 700 mm (tapered) |

#### COMPARISON OF TANK DIMENSIONS

|                            | 320,000 m³<br>Membrane             | 160,000 m³<br>Full Containment |
|----------------------------|------------------------------------|--------------------------------|
| Outer Tank<br>Diameter     | 91 m                               | 80 m                           |
| Cyl. Shell<br>Height       | 54 m                               | 39 m                           |
| Concrete Wall<br>Thickness | 1,200 mm<br>to 700 mm<br>(tapered) | 700 mm                         |



#### **ADVANTAGES**

- GST system is based on MarkIII and all improvements regarding the installation procedure and tools developed for MarkIII can be used for land storage
- Design philosophy based on the separation of structural and tightness functions
- Lower investment costs for huge storage volumes (cost savings between 5 18%)
- Lower footprint
- Earthquake behaviour facilitating big size tanks in high seismic areas
- No inner tank is required
- Less dependency on highly volatile nickel price

#### For further information

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