amalphi

ADVANCED ISO LNG Tanks

40’ Advanced ISO LNG Tank

EXECUTIVE COMPETITIVE BRIEF

40’ Advanced ISO Cryogenic LNG Tank (UN T75) | 36,600 L

1. PERFORMANCE ECONOMICS

Advanced LNG tanks are engineered as mobile, long-term storage assets rather than short-cycle transport containers.

- Guaranteed holding time ≥ 186 days (vs. market norm 30-40 days), validated under Bureau Veritas supervision.
- Near-elimination of boil-off gas (BOG) losses.
- Transforms transport units into long-term storage assets.
- Material reduction in LNG shrinkage, intervention, and lifecycle OPEX.

2. PASSIVE THERMAL MASTERY

Unlike conventional LNG ISO tanks that rely on venting and pressure relief, our Advanced ISO LNG tanks use proprietary passive insulation technology.

- ZERO active cooling required.
- Validated insulation integrity at +50°C ambient heat.
- No pre-cooling or active cooling required to prevent leakage.
- Holds for ≥ 85 days at +50°C with zero loss.
- Continued holding ≥ 186 days with <1% loss.

3. STRUCTURAL DOMINANCE

Our Advanced ISO LNG tanks are intentionally over-engineered for durability, fatigue resistance, and long service life.

- Inner Vessel Thickness: 9 mm (market standard: 3 mm).
- ~300% higher resistance to fatigue and thermal cycling.
- Material: Stainless Steel (X6CrNiTi18-10).
- Inner vessel material: AISI 321 (titanium-stabilized).
- Outer vessel: S355NL2 (10 mm); ISO frame: S355J2H.
- No limited lifespan (Permanent Asset).

4. HIGHER PAYLOAD, LOWER LOSSES

- 95% LNG fill ratio (~35,600 L usable).
- Competitors limited to 80-85% fill.
- Competitor losses average ~75 kg/day of gas
- Max Payload: 16,100 kg.
- CTT delivers materially higher energy per shipment.

5. CERTIFICATION & TESTING

- Bureau Veritas Design Approval.
- Full Destructive and NDT (Non-Destructive Testing) verification.
- Compliant: ADR, RID, IMDG, ASME VIII.
- 100% European Manufacturing.
- Continuous third-party oversight during manufacturing.

6. MODULAR & STACKABLE VESSEL FARMS

- Plug-and-play interconnection capability.
- Enables instant power generation (0.5 - 5 MW) in remote areas.
- Acts as a "Virtual Pipeline" for islands/industry.
- Stackable to 192,000 kg (High Density).
- ISO-compliant and stackable for marine and terminal operations.
- Optimized for vessel transport, terminals, and intermodal logistics.
- Rapid deployment replacing permanent civil infrastructure.

AMALPHI M.I.K.E.
info@amalphi.gr
www.amalphi.gr
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