

Steel Storage Tank – Operation, Maintenance & Warranty Guide

(Tank Structure Only – Excludes Ancillary Equipment)

1. General Information

This document provides guidance for the safe operation, inspection, and maintenance of a steel storage tank. It applies strictly to the **tank structure (shell, roof, floor, and integral construction)** and excludes all ancillary equipment.

The tank is a non-pressurised vessel designed for the storage of appropriate liquids within specified operating limits. Tanks must only be used for their intended purpose and within their design parameters.

- Typical operating temperature range: **-20°C to +40°C**
 - Bunded tanks are designed to provide **minimum 110% containment capacity**
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2. Installation – Tank Base Requirements (OFTEC-Aligned Guidance)

The tank must be installed on a **suitable base in accordance with OFTEC and Building Regulations**. The base is critical to ensure structural integrity and long-term performance.

2.1 Base Construction

- The base must be constructed from **non-combustible material**, typically reinforced concrete
- Minimum thickness: **100 mm (recommended ≥150 mm for larger tanks)**
- The base must extend at least **300 mm beyond the tank footprint on all sides**
- The surface must be **continuous and fully support the entire tank base** (no point loading)

2.2 Level Tolerance

- The base must be **level within ±5 mm across the full tank footprint**
- No localised high or low points that could introduce stress into the tank floor
- The surface must be smooth, free from debris, and properly finished

2.3 Ground Conditions

- The base must be installed on **stable, well-compacted ground**
- Avoid installation on soft, made-up, or waterlogged ground unless properly engineered
- Where required, a sub-base (e.g., compacted hardcore) should be installed beneath the concrete

2.4 Installation Checks

Prior to placing the tank:

- Confirm base dimensions and level tolerance
- Ensure full curing of concrete before loading
- Verify that the base is free from standing water or contaminants

Failure to install the tank on a compliant base may result in:

- Tank distortion or cracking
- Uneven settlement
- Premature failure

This will **invalidate warranty**.

3. Routine Inspection (User Checks)

The tank should be **visually inspected at regular intervals (recommended monthly)** for the following:

- Signs of damage to the tank structure, including dents, cracks, or deformation
- Evidence of leaks, staining, or product residue
- Signs of corrosion or paint failure
- Condition of supports, base, or any structural framework
- General condition of exposed metal surfaces

If any **leaks, structural damage, or deterioration** are identified, the tank must be **taken out of service immediately** and assessed by a competent person.

4. Operation Guidelines

4.1 General Use

- The tank must only be used to store the product it was designed for
- Do not operate outside of design conditions
- Ensure the tank is installed and supported correctly prior to use

4.2 Filling

- Do not exceed **95% of the tank's usable capacity**
- Overfilling may result in leakage, structural damage, or environmental risk
- Filling operations must be controlled at all times

4.3 General Handling

- Tanks must be transported and handled **empty only**
 - Avoid impact, abrasion, or contact with sharp objects
 - Ensure no debris or contaminants are left on the tank surface
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5. Maintenance Requirements

5.1 Coating & Corrosion Protection

- The tank coating must be inspected **at least annually**, including underside areas
- Any scratches, damaged areas, or corrosion must be repaired immediately
- Steel tanks must be **painted following installation and annually thereafter** to maintain integrity and longevity

5.2 Cleaning

- Remove any debris, swarf, or contaminants from the tank surface
- Prevent accumulation of water or sediment within the tank base
- Maintain cleanliness to reduce corrosion risk

5.3 General Upkeep

- Protect exposed metal components from corrosion (e.g., apply grease where appropriate)
 - Inspect structural supports and base for signs of stress or movement
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6. Operating Restrictions

- The tank must **not be used for products outside its design specification**
- Tanks are **not suitable for petrol, LPG, or other inappropriate substances**
- Do not modify, alter, or repair the tank without written approval
- Do not subject the tank to abnormal loading, pressure, or environmental conditions

Failure to comply with the above may result in damage, increased risk of failure, and invalidation of warranty.

7. Decommissioning & Out-of-Service

- Tanks must be emptied and cleaned prior to being taken out of service
 - Protect internal and external surfaces from corrosion during storage
 - Inspect condition prior to returning to service
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8. Warranty

- The tank is supplied with a **12-month warranty** from the date of delivery, covering manufacturing defects.
- When correctly installed, maintained, and operated, the tank has an **expected service life in excess of 20 years**.

Warranty Limitations

- The warranty does **not cover consequential or indirect losses**, including (but not limited to) loss of contents, environmental damage, loss of business, or associated costs.
- The warranty is conditional upon:
 - Proper installation and use
 - Compliance with this Operation & Maintenance guidance
 - Ongoing inspection and maintenance

For full details of warranty terms, limitations, and conditions, **refer to the company's full Terms & Conditions document**.

9. Annual Maintenance Record (For Warranty Purposes)

The following checklist should be completed **annually** and retained as evidence of maintenance. Failure to maintain records may impact warranty claims.

Maintenance Check	Completed (✓)	Comments	Date	Signature
External coating condition inspected (including underside)	☐			
Any corrosion, scratches, or damage repaired	☐			
Tank shell and roof inspected for dents, distortion, or defects	☐			
Evidence of leaks, staining, or residue checked	☐			
Tank base and supports inspected for settlement or movement	☐			
Tank cleaned (external and internal as required)	☐			
Debris and contaminants removed from tank surfaces	☐			
Exposed metal components protected (e.g., greased where required)	☐			

Inspector Name: _____

Signature: _____

Date: _____

10. Key Responsibilities of the Owner/User

- Carry out regular inspections (recommended monthly)
 - Complete and retain annual maintenance records
 - Maintain coating and corrosion protection
 - Operate within design limits at all times
 - Ensure compliance with all applicable regulations
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