Rainwater Harvesting Tanks Manual

Models: WN6310, WN6470, WN6525

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1. Introduction & Product Overview

Thank you for choosing a Techneat Rainwater Harvesting Tank. These tanks are designed to collect, store and reuse rainwater for a wide range of agricultural, domestic and commercial applications.

Rainwater harvesting systems help reduce reliance on mains water by collecting rainwater from roof areas and storing it for later use such as irrigation, cleaning, livestock watering and other water reuse applications. Our tanks are manufactured from 100% virgin Medium Density Polyethylene (MDPE) using rotational moulding technology. The material is highly durable, corrosion resistant and suitable for long-term outdoor use.

These tanks are also WRAS Approved, meaning the materials are suitable for drinking water applications if used within an appropriate system. Please read this manual carefully before installation and operation to ensure safe use and long service life.

2. Key Features

- Water storage capacity from 5000L to 20000L
- Manufactured from 100% virgin MDPE polyethylene
- WRAS Approved material suitable for potable water systems
- Strong, durable rotomoulded construction
- Designed for rainwater harvesting and storage
- UV stabilised material for outdoor use
- Suitable for domestic, agricultural and commercial applications
- Compatible with rainwater filtration systems
- Designed for long service life

3. Applications

Rainwater harvesting tanks can be used in numerous applications including:

- Garden irrigation
- Agricultural spraying
- Livestock watering
- Pressure washing
- Vehicle washing
- Toilet flushing systems
- Washing machines
- Commercial water reuse systems

Many customers install these tanks to reduce dependence on mains water and lower water costs.

4. Technical Specifications

Material: 100% Virgin MDPE (Polyethylene)

Construction: Rotationally moulded

Installation Type: **Above-ground only**

Colour Options:

Black (Standard)

- Most commonly supplied
- Prevents sunlight entering the tank
- Reduces algae growth

Natural (Special Order)

- Water level visible from outside
- Not recommended for outdoor use without water treatment as sunlight may cause algae growth

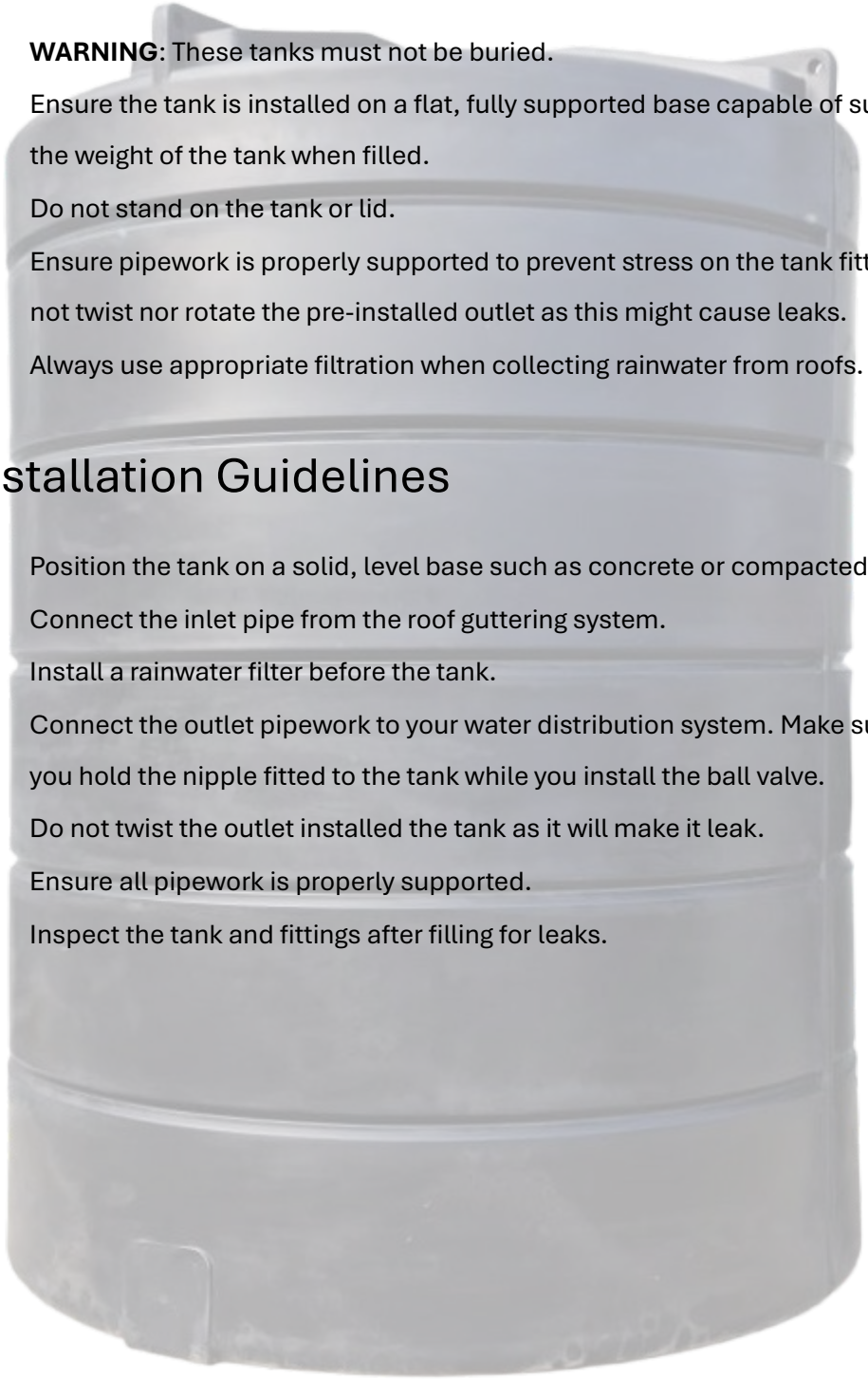
5. Safety Information

Please read and follow all safety instructions before installation.

- **WARNING**: These tanks must not be buried.
- Ensure the tank is installed on a flat, fully supported base capable of supporting the weight of the tank when filled.
- Do not stand on the tank or lid.
- Ensure pipework is properly supported to prevent stress on the tank fittings. Do not twist nor rotate the pre-installed outlet as this might cause leaks.
- Always use appropriate filtration when collecting rainwater from roofs.

6. Installation Guidelines

- Position the tank on a solid, level base such as concrete or compacted ground.
- Connect the inlet pipe from the roof guttering system.
- Install a rainwater filter before the tank.
- Connect the outlet pipework to your water distribution system. Make sure that you hold the nipple fitted to the tank while you install the ball valve.
- Do not twist the outlet installed the tank as it will make it leak.
- Ensure all pipework is properly supported.
- Inspect the tank and fittings after filling for leaks.



7. Rainwater Filter Requirement

When installing a rainwater harvesting tank, it is essential to install a rainwater filter between the roof gutter and the tank.

Without a filter, debris such as leaves, moss, sand and small stones can enter the tank and block the outlet pipe.

A commonly used solution is our **EL9691 Rainwater VF1 Combi Filter**.

The VF1 filter is designed to filter rainwater before it enters the tank and can be installed either:

- Inside the tank
- On top of the tank
- In the pipework before the tank

Key features of this filter include:

- Suitable for roof areas up to 450m^2
- Two-stage filtration system
- Self-cleaning design
- Low maintenance
- Fine filter mesh of 0.65 mm
- Dirt and debris are washed away to waste while clean water flows to the tank

The filtration process works as follows:

- Incoming rainwater flows across a cascade that removes larger debris.
- Pre-filtered water passes through a fine sieve filter (0.65mm mesh) removing smaller particles.
- Clean water flows into the storage tank.
- Dirt and debris are diverted away through a waste outlet.

The filter should be inspected and cleaned **once or twice per year depending on contamination levels**.

Installing a filter significantly improves water quality and prevents outlet blockages.

Tank Inlet Design

The inlet inside the tank is intentionally positioned slightly above the base of the tank.

This allows natural sediments to settle at the bottom of the tank such as:

- Sand
- Small stones
- Dirt particles

Although this slightly reduces the usable capacity, it prevents sediment from being drawn into the outlet pipe, protecting pumps, taps and pipework.

8. Operating Instructions

- Inspect the inside of the tank periodically for debris or contamination.
- Ensure the inlet pipe from the gutter is connected to the filter system.
- Rainwater will enter the tank automatically during rainfall.
- Use the outlet connection to draw water for your chosen application.
- Periodically inspect the tank and filtration system.

9. Maintenance

Regular maintenance will ensure long service life and good water quality. Recommended maintenance includes:

- Inspect rainwater filters 1–2 times per year
- Remove debris or sediment from the tank if required
- Inspect outlet fittings and pipework
- Ensure pipework is properly supported
- Check for any signs of damage or stress around fittings

10. Basic Troubleshooting

Water not flowing from outlet

Possible causes:

- Blocked outlet due to debris
- No rainwater filter installed
- Sediment build-up inside the tank

Recommended checks:

- Inspect the outlet pipe for blockages
- Check the rainwater filter
- Remove debris from inside the tank if required

Cracks around outlet connection

Possible causes:

- Pipework not supported
- Repeated stress from connecting/disconnecting hoses

Recommended checks:

- Ensure the outlet pipework is fully supported
- Avoid placing stress directly on the tank fitting
- Always support sprayer hoses or attachments

Failure to support pipework can create stress points which may damage the tank over time.

Reduced usable tank capacity

Customers may notice that the outlet pipe is positioned above the bottom of the tank.

This is intentional and designed to allow sediment to settle at the base of the tank. This prevents debris from entering the outlet pipe and improves system reliability.

11. Government Grants

Financial support may be available for rainwater harvesting systems through the **UK Countryside Stewardship Grant Scheme.**

Examples include:

- RP16 – Rainwater Goods
- RP18 – Above-Ground Tanks
- RP19 – First Flush Rainwater Diverters and Downpipe Filters

These grants are designed to support landowners and farmers in installing water conservation systems.

More information can be found at:

https://www.gov.uk/countryside-stewardship-grants/rainwater-goods-rp16
https://www.gov.uk/countryside-stewardship-grants/above-ground-tanks-rp18
https://www.gov.uk/countryside-stewardship-grants/first-flush-rainwater-diverters-and-downpipe-filters-rp19

12. Warranty

Techneat Rainwater Harvesting Tanks are supplied with a 5-year warranty covering manufacturing defects from the date of purchase.

The warranty does not cover damage caused by:

- Incorrect installation
- Buried installation
- Unsupported pipework
- Impact damage
- Misuse or modification

13. Identification Information

Each tank is fitted with identification including:

- Serial or batch information
- Manufacturer details
- Quality Check Datasheet available upon request to rui.santos@techneat.co.uk

Please include your tank's serial number when requesting this information.