



Model ANTS-PP  
with pH Monitoring

## LabTank®

### Laboratory Acid Neutralization Treatment System with 24/7 Monitoring



The NWPX Park LabTank® supports responsible waste management in laboratory environments. The neutralization tanks or basins are designed to collect and chemically neutralize acidic waste before discharging into the sanitary sewer system. The system also protects lab workers and equipment from potential harm caused by acidic wastewater.

Our pH measuring system determines the degree of neutralization by calculating the concentration of hydrogen ions in the wastewater and then treating the wastewater with a neutralizing agent. The neutralized wastewater is then filtered and monitored for compliance with local, state, or federal regulations before it is discharged.

### Applications

- Educational labs • Medical testing and research • Chemical, mineral, and metal industries • Food and beverage processing • Electronics manufacturing • Water and wastewater treatment • Battery manufacturing and storage • Morgues and funeral homes

### Advantages

- UPC and IPC compliant
- Remote electronic monitoring system provides 24/7 monitoring for pH level, temperature, and leak detection
- Built to city and municipal specifications in sizes from 15 – 2,000 gallons
- High-strength precast concrete and steel construction available
- Monolithic tank and leak-proof construction
- Choices of interior acid-proof liners
- Gas-tight traffic duty access covers



Model ANPT



Model ANT-PP



Model ANTC



Model ANT-PB



## System Components

**Neutralization Media:** The neutralization process occurs in this area. Our high-grade media is a natural material with a size of 1–3" and a high calcium carbonate equivalent content of over 95%. For waste that contains predominantly sulfuric acid, we recommend a dolomitic limestone media containing a high percentage of magnesium carbonate in addition to calcium carbonate.

**Access Covers:** Gas-tight access covers are built to withstand vehicle traffic loading.

**Vent:** Releases air pressure and prevents the buildup of harmful gases.

**Sampling Basin:** A sampling port allows for periodic testing of the wastewater's pH level.

**pH Sensor Probe:** The pH sensor probe is easily accessible for periodic inspection and cleaning.

**pH Monitoring Panel:** Control interface continuously records the effluent's pH level and alerts the operator when it is out of compliance with regulations.

## How It Works

Acidic wastewater flows into the neutralization tank or basin, and the water is neutralized with an agent such as sodium hydroxide or calcium carbonate rock media. The neutralized wastewater then leaves the tank to discharge into the sewer system in compliance with local, state, or federal regulations.

The neutralization process occurs through a chemical reaction between the acidic waste and calcium and magnesium carbonate. The degree of neutralization can be measured by the pH system, which determines the concentration of hydrogen ions. When the acidic wastewater comes into contact with neutralization media, a neutralization reaction occurs. The primary component of neutralization media is calcium carbonate, which reacts with the acid to produce calcium ions, water, and carbon dioxide gas. This reaction results in the neutralization of the acid, as the hydrogen ions are consumed by the reaction and the pH of the solution increases towards neutral.



Full product  
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