

**General Information:**

The T&C Neutralization tank is designed to intercept harmful chemicals; dilute and neutralize these wastes so that they are safe to discharge to the sewer.

**How it Works:**

The inlet channels the incoming waste directly to the bottom of the tank. Before reaching the outlet the fluids must first pass through proper limestone chips filling the tank. The Calcium carbonate in the limestone reacts with acids to form harmless neutral salts, carbon dioxide and water. The neutral salts are transformed into sludge and fall to the bottom of the tank. Carbon dioxide gas mixes with water to form carbonic acid, which helps to neutralize alkaline wastes. The water helps to dilute the acidic, alkaline and solvent wastes. Once neutralized, wastes are discharged to the sewer systems.

**Sizing:**

American Society of Plumbing Engineers, as well as some national and local codes have recognized different ways of sizing a neutralization tank. It is advis-able to check with local authorities for sizing requirements in your particular locality. Sizing the proper tank for your project is determined by the number of lab sinks discharging through the system. Table TC1 illustrates the most widely used sizing method for school lab waste limestone central treatment systems.

**Limestone Chips:**

The limestone chips used in conjunction with neutralization tanks must be in the one to three inch (1"- 3") diameter size range and must contain a high calcium carbonate content in excess of 90%. Table TC2 is a useful reference tool in determining the proper amount of limestone needed for the respected tank size. NOTE: This guide provides the approximate amount needed for a charge (one filling). Replacement chips will be required as determined by the use of the tank.

**Tank Maintenance:**

- \* All limestone chips must be replaced every 12-18 months. Over time, the surface of the stones becomes crystallized and are no longer effective. Oils and solids can also make limestone ineffective over time.
- \* Always fill the tank with the water, up to the bottom (invert) of the outlet fitting (lowest fitting). Gently add the proper limestone chips so not to damage the tank or fittings. As the limestone is added, some water will overflow out of the outlet fitting. The room/area should be ventilated.
- \* Please call our offices or your local rep if you have any questions.

**SPECIFICATIONS:**

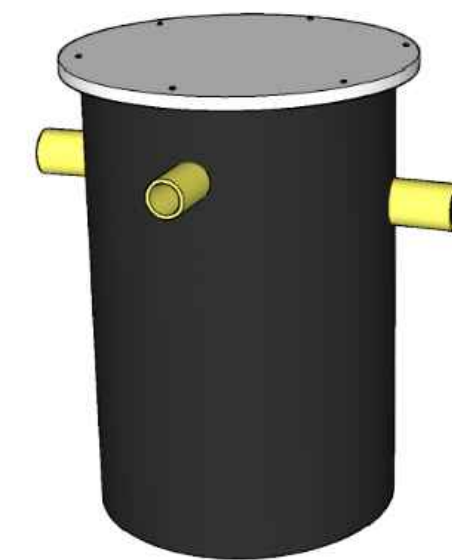
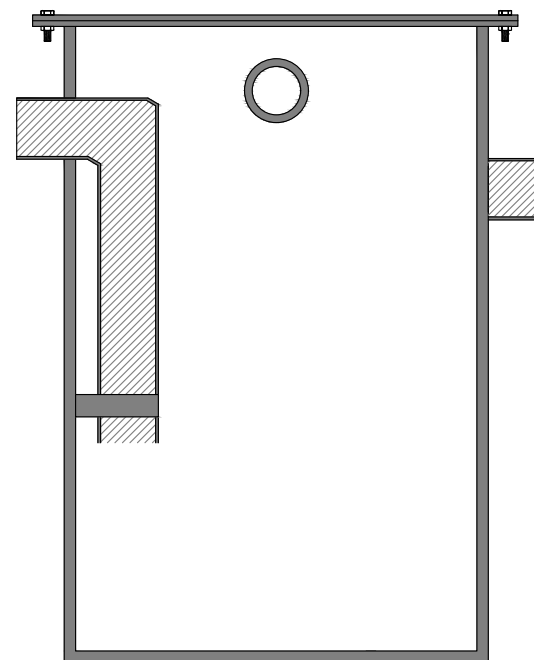
1. ACID NEUTRALIZATION TANK T&C PLASTICS MODEL # \_\_\_\_\_ WITH MODEL RLS-50 LIMESTONE CHIPS.
2. SAMPLING TANK T&C PLASTICS MODEL NT- \_\_\_\_\_ WITH PH ELECTRODE.
3. PH MONITORING PANEL T&C PLASTICS PHCP-100 SERIES - SEE TOP RIGHT FOR OPTIONS.
4. POLYPROPYLENE SHUT OFF VALVE T&C PLASTICS MODEL PPV- \_\_\_\_\_.
5. ACID WASTE VENT OUT.
6. SANITARY HOUSE TRAP OR RUNNING TRAP WITH SANITARY VENT.

**Table TC2 - Limestone**

TANK MODEL #	APPOXIMATE AMOUT POUNDS
NT-5	50 lbs.
NT-15	100 lbs.
NT-30	200 lbs.
NT-55	500 lbs.
NT-100	1,000 lbs.
NT-150	1,750 lbs.
NT-175	1,900 lbs.
NT-200	2,500 lbs.
NT-275	3,200 lbs.
NT-300	3,200 lbs.
NT-350	4,000 lbs.
NT-500	5,000 lbs.
NT-550	7,500 lbs.
NT-650	9,000 lbs.
NT-700	9,100 lbs.
NT-800	9,500 lbs.
NT-1000	10,200 lbs.
NT-1100	10,600 lbs.
NT-1200	11,000 lbs.
NT-2000	16,000 lbs.
NT-3000	25,000 lbs.

**Table TC1: Acidic Waste Neutralization Tank Sizing Table**

Number of Lab Sinks	2	4	8	16	25	40	50	60	80	90	110	150	175	200	270	300
Tank Size in Gallons	5	15	30	55	100	150	175	200	275	300	350	500	550	650	1000	1200



UNLESS STATED OTHERWISE DIMENSIONS ARE IN INCHES	MATERIAL: <b>HDPE</b>				TITLE: <b>LIMESTONE TANK SIZING GUIDELINES FOR SCHOOLS</b>	NT	REV:		
	WEIGHT [lb]:		DRAWN	NAME		DR	DATE		SIZE:
	DO NOT SCALE DRAWING		CHECKED						SCALE: 1:2
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