

NEUTRALIZATION TANKS

General Product Information

The Zurn Neutralization tank is designed to intercept harmful chemicals; dilute and neutralize these wastes and release them to the public sanitation system.

How It Works

The Zurn inlet immediately channels the incoming fluids directly to the bottom of our tank. As the fluids work their way to the outlet, they must first pass through limestone chips filling the tank. Calcium carbonate (the effective ingredient in limestone chips) 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 advisable 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 A1 illustrates the most widely used sizing method.

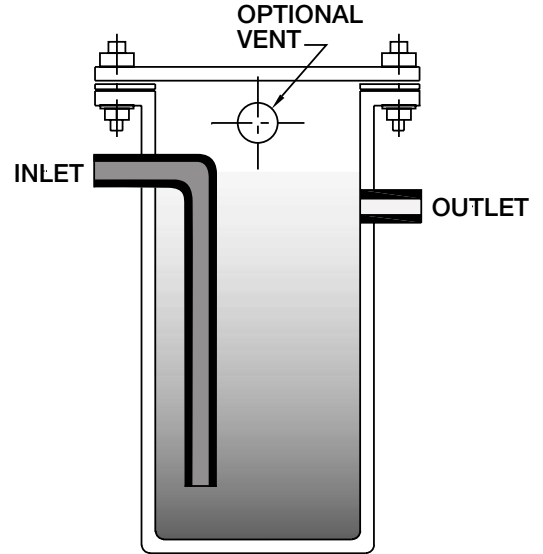


Table A1: Acidic Waste Neutralization Tank Sizing Table

Number of Lab Sinks	2	4	8	16	22	27	30	40	50	60	75	110	150	175	200	300	500	600
Tank Size in Gallons	5	15	30	55	75	90	108	150	175	200	275	360	500	550	650	1200	2000	3000
(Liters)	(18.9)	(56.8)	(113.6)	(208.2)	(283.9)	(340.7)	(408.8)	(567.8)	(662.4)	(757.0)	(1040.9)	(1362.6)	(1898.5)	(2081.8)	(2460.3)	(4542)	(7570)	(11355)

NOTE: For commercial and industrial laboratories, the number of lab sinks should be multiplied by .5 use factor.

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 B1 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

A proper maintenance schedule must be adhered to. If adequate maintenance is not performed, the efficiency of the tank drops off dramatically. A regular maintenance program of one to three months should be observed, more frequent maintenance may be required depending upon volume of waste through the tank.

Table B1: Amount Pounds

Tank Model #	Approximate Amount Pounds
Z9A-NT-5	50 lb.
Z9A-NT-15	100 lb.
Z9A-NT-30	200 lb.
Z9A-NT-55	500 lb.
Z9A-NT-100	1,000 lb.
Z9A-NT-150	1,750 lb.
Z9A-NT-200	2,500 lb.
Z9A-NT-275	3,200 lb.
Z9A-NT-350	4,000 lb.
Z9A-NT-500	5,000 lb.
Z9A-NT-1200	11,000 lb.