



LabWaste™ CPVC Corrosive Waste Drainage System
LabWaste™ Standard CPVC & HDPE Neutralization Tanks

Acid Neutralization/Dilution Tanks for Use With LabWaste™ CPVC Systems

Neutralization or dilution tanks are required by codes for the purpose of neutralizing corrosive wastes. Corrosive liquids, spent acids or other harmful chemicals that destroy or damage a drain, sewer, soil or waste pipe, or create noxious or toxic fumes or interfere with sewage treatment processes are prohibited from discharge into the plumbing system without being neutralized or treated. Spears® offers a standard selection of HDPE tanks in 5 gallon to 3000 gallon capacities and CPVC tanks in 5 gallon to 55 gallon capacities with connection and vent options listed below, plus convenient 1- gallon Dilution Tank designed for under-sink installation. Tanks can also be produced in virtually any custom size, shape, or connection configuration. Contact Spears® Technical Services with desired specifications for custom quotation.

Standard HDPE Round Tanks Technical Information

Construction: HDPE – High Density Polyethylene

Tank Capacity US Gallons	Approx Useable Capacity, US Gallons		Inside Dimension Dia. x Ht. (in.)	Wall Thickness (in.)	Approx Weight (lbs)	Standard Inlet & Outlet Connection Size (in.)	Standard Fitting Connection	LabWaste™ Transition Connection Fitting ³	Optional ⁴ Vent Connection Size (in.)	Approx. Centerline Height (in.) ⁵		
	Without Limestone	With Limestone								Inlet	Outlet	Vent
5	3	1	11 x 14	3/16	10	1-1/2 or 2	Mipt	P101	1-1/2 or 2	11	8	12
15	7	2	18 x 15	3/16	20	1-1/2 or 2	Mipt	P101	1-1/2 or 2	11	8	12
30	19	6	18 x 29	3/16	35	3	Mipt	P101	2 or 3	23	19	25
55	35	12	22 x 36	3/16	50	4	Mipt	P101	3 or 4	27	23	31
100	77	26	28 x 42	1/4	85	4	Mipt	P101	3 or 4	35	31	37
150	105	35	31 x 48	1/4	100	4	Mipt	P101	3 or 4	38	34	42
175	135	45	30 x 60	1/4	125	4	Mipt	P101	3 or 4	51	47	54
200	137	46	36 x 48	1/4	125	4 or 6	Mipt/Flange	P101/854	4 or 6	38	34	42
275	186	62	42 x 48	1/4	160	4 or 6	Mipt/Flange	P101/854	4 or 6	38	34	42
300	230	76	36 x 74	5/16	175	4 or 6	Mipt/Flange	P101/854	4 or 6	61	56	65
350	243	81	48 x 48	5/16	200	4 or 6	Mipt/Flange	P101/854	4 or 6	38	34	42
500	395	132	52 x 60	3/8	225	4 or 6	Mipt/Flange	P101/854	4 or 6	51	47	54
550	447	149	48 x 72	3/8	275	4 or 6	Mipt/Flange	P101/854	4 or 6	64	60	67
650	548	183	48 x 84	3/8	375	4 or 6	Mipt/Flange	P101/854	4 or 6	75	71	76
1200	1052	351	69 x 84	3/8	600	4 or 6	Mipt/Flange	P101/854	4 or 6	74	68	76
2000 ¹	1559	521	84 x 84	1/2	850	4 or 6	Mipt/Flange	P101/854	4 or 6	74	68	76
3000 ¹	2203	735	95 x 97	1/2	1350	4 or 6	Mipt/Flange	P101/854	4 or 6	87	83	91

Standard CPVC Round Tanks Technical Information

Construction: Chlorinated Polyvinyl Chloride (CPVC)

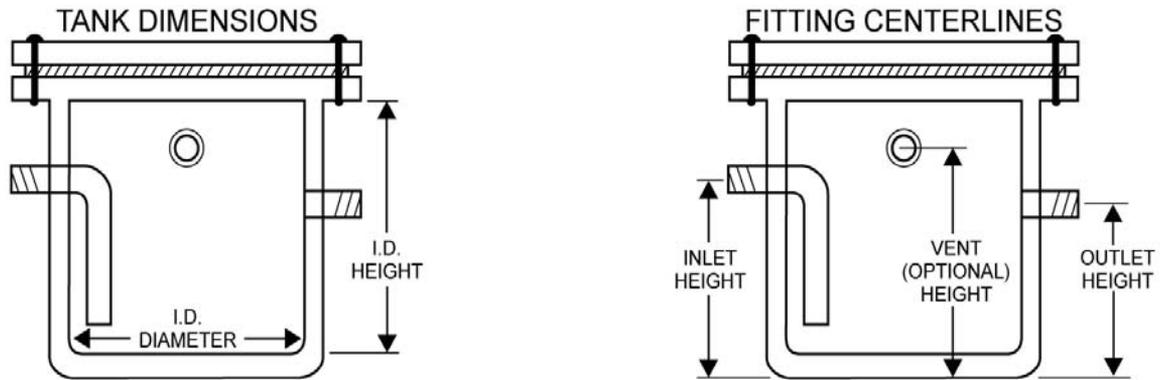
Tank Capacity US Gallons	Approx Useable Capacity, US Gallons		Inside Dimension Dia. x Ht. (in.)	Wall Thickness (in.)	Approx Weight (lbs)	Standard ² Inlet & Outlet Connection Size (in.)	Standard Fitting Connection	LabWaste™ Transition Connection Fitting ³	Optional ⁴ Vent Connection Size (in.)	Approx. Centerline Height (in.) ⁵		
	Without Limestone	With Limestone								Inlet	Outlet	Vent
5	5	3	12-3/8 x 14-11/16	3/16	20	1-1/2 or 2	Soc	direct	1-1/2 or 2	11	8	12
15	15	7	17-11/16 x 17-1/4	3/16	35	1-1/2 or 2	Soc	direct	1-1/2 or 2	11	8	12
30	30	18	17-5/8 x 33	3/16	54	3	Soc	direct	2 or 3	23	18	25
55	55	35	23-1/2 x 38-1/2	1/4	70	4	Soc	direct	3 or 4	27	23	31

Important Notes

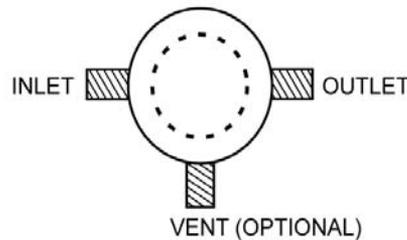
- Larger HDPE tanks may include exterior steel banding or fiberglass reinforcement for additional strength. Special ordered optional inspection manhole ports are recommended for larger tanks (includes cover with neoprene gasket, stainless steel nuts, bolts, and washers).
- All tanks can be special ordered with Mipt, Flanged (150#), and Fipt connections or varying combinations other than standard connections specified. Inlets or vents may also be custom ordered for installation in covers instead of tank sides.
- For transitions from Mipt HDPE tank connections to **LabWaste™** piping use part numbers P101-xxxC, Female Adapter. CPVC tank sockets can be cemented directly to **LabWaste™** piping. For transitions from ALL flanged connections to **LabWaste™** piping use part numbers 854-xxxC, Flange (xxx = size code).
- Venting is required by codes but may be accomplished either at the tank or in-line.
- Neutralization tanks and tank extensions are not warranted for direct burial applications. Tanks must be properly placed and secured with no applied stresses, within a dry concrete vault with use of a protective traffic cover as deemed appropriate. However, if direct burial is used without warranty, custom centerlines must be furnished from top of cover down to fitting centerline instead of specified tank bottom to fittings centerline since tank heights can vary.



HDPE Tanks

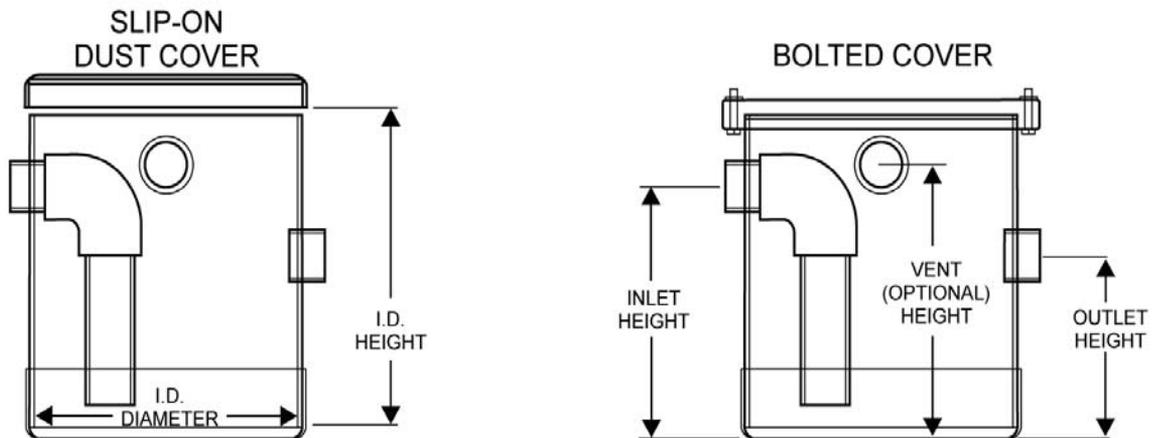


TOP VIEW STANDARD FITTING LOCATIONS



(Advise If You Want
 Standard Locations Changed)

CPVC Tanks





LabWaste™ CPVC Corrosive Waste Drainage System
LabWaste™ Standard HDPE Round Neutralization Tanks

PRICE SCHEDULE

LabWaste™ Standard HDPE Round Neutralization Tanks

Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet & Outlet Connection	HDPE Tank Part No./ Price	Disc Code
5	1-1/2	Mipt	T20051414B	169
			779.49	
5	2	Mipt	T20052424B	169
			779.49	
15	1-1/2	Mipt	T20151414B	169
			1,206.00	
15	2	Mipt	T20152424B	169
			1,206.00	
30	3	Mipt	T20303434B	169
			1,676.64	
55	4	Mipt	T20554444B	169
			2,132.57	
100	4	Mipt	T21004444B	169
			2,926.78	
150	4	Mipt	T21504444B	169
			3,897.46	
175	4	Mipt	T21754444B	169
			5,147.59	
200	4	Mipt	T22004444B	169
			5,515.27	
275	4	Mipt	T22754444B	169
			6,618.33	
275	6	Flange	T22756363B	169
			6,618.33	
300	4	Mipt	T23004444B	169
			6,986.01	
300	6	Flange	T23006363B	169
			6,986.01	
350	4	Mipt	T23504444B	169
			7,574.31	
350	6	Flange	T23506363B	169
			7,574.31	
500	4	Mipt	T25004444B	169
			10,295.19	
500	6	Flange	T25006363B	169
			10,295.19	

Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet & Outlet Connection	HDPE Tank Part No./ Price	Disc Code
550	4	Mipt	T25504444B	169
			11,324.71	
550	6	Flange	T25506363B	169
			11,324.71	
650	4	Mipt	T26504444B	169
			12,942.51	
650	6	Flange	T26506363B	169
			12,942.51	
1200	4	Mipt	T212C4444B	169
			20,584.46	
1200	6	Flange	T212C6363B	169
			20,584.46	
2000	4	Mipt	T220C4444B	169
			32,350.38	
2000	6	Flange	T220C6363B	169
			32,350.38	
3000	4	Mipt	T230C4444B	169
			45,592.92	
3000	6	Flange	T230C6363B	169
			45,592.92	

Optional Vent Outlet (recommended) for HDPE Tank			
Vent Size (in.)	Vent Connection	Add-on to Part No. / and to Price	Disc Code
1-1/2	Mipt	14	169
		147.07	
2	Mipt	24	169
		147.07	
3	Mipt	34	169
		220.62	
4	Mipt	44	169
		294.15	
6	Flange	63	169
		514.76	

Example: T20051414B14



LabWaste™ Standard CPVC Round Neutralization Tanks

Additional Inlet/Outlet Sizes, Combinations & Custom Configurations Available

Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet & Outlet Connection	CPVC Tank Part No./Price		Disc Code
			Dust (slip) Cover	Bolted Cover	
5	1-1/2	Soc	T30051212A	T30051212B	169
			1,394.75	3,205.14	
5	2	Soc	T30052222A	T30052222B	169
			1,394.75	3,205.14	
15	1-1/2	Soc	T30151212A	T30151212B	169
			1,926.04	4,455.49	
15	2	Soc	T30152222A	T30152222B	169
			1,926.04	4,455.49	
30	3	Soc	T30303232A	T30303232B	169
			2,575.76	5,004.89	
55	4	Soc	T30554242A	T30554242B	169
			4,974.78	8,237.62	

Optional Vent Outlet (recommended) for CPVC Tank

Vent Size (in.)	Vent Connection	Add-on to Part No. / and to Price	Disc Code
1-1/2	Soc	12	169
		147.07	
2	Soc	22	169
		147.07	
3	Soc	32	169
		220.62	
4	Soc	42	169
		294.15	

Example: T30051212A12

Neutralization Tank Sizing Table

The following recommendation from the American Society of Plumbing Engineers (ASPE) may be used as a guideline for sizing tanks according to the number of lab sinks.

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

Note: For commercial and industrial laboratories, the number of lab sinks should be multiplied by a 0.5 use factor. (ASPE Data Book Vol. 3, Page 42, 2001).



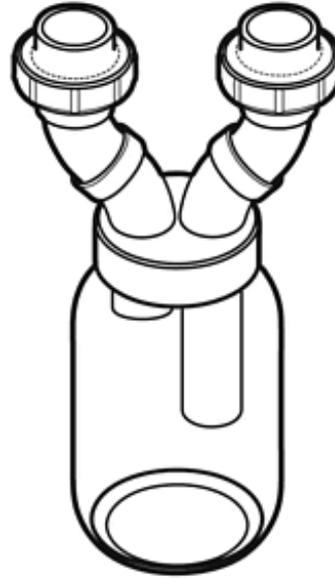
**LabWaste™ CPVC Corrosive Waste Drainage System
LabWaste™ Dilution Tanks**

LabWaste™ 1-Gallon CPVC Dilution Tanks

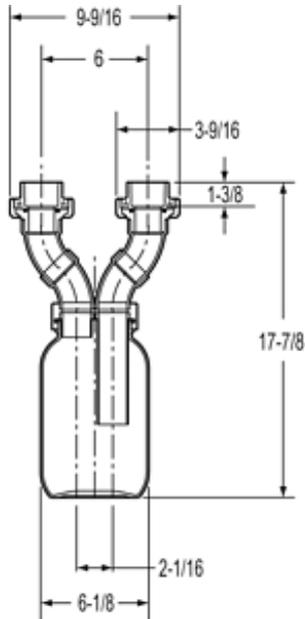
Provides chemical dilution from water rinse during use. Designed for under-sink installations. CPVC construction with Glass or PP Jar type tank.

Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet & Outlet Connection	CPVC Tank Part Glass Jar Tank No./Price	Disc Code
1	1-1/2	Socket Union	T3001G1515	169
			404.45	

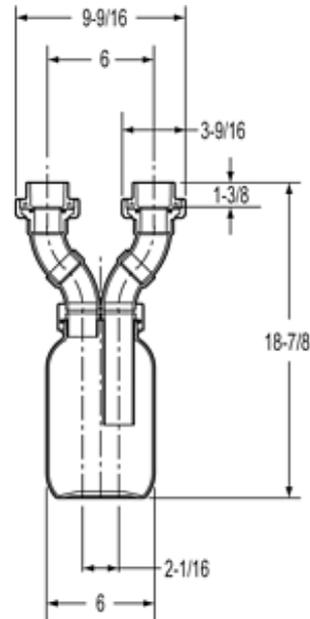
Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet & Outlet Connection	CPVC Tank Part Polypropylene Jar Tank No./Price	Disc Code
1	1-1/2	Socket Union	T3001P1515	169
			291.20	



Dimensions



Glass



Polypropylene



LabWaste™ 1-Gallon CPVC Dilution Traps

Provides chemical dilution from water rinse during use. Designed for under-sink installations as a trap. CPVC construction with Glass or PP Jar type tank.

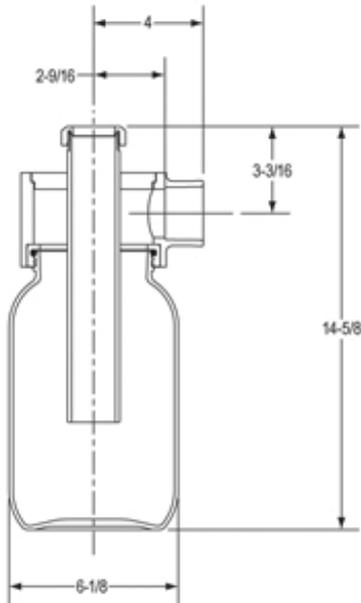
Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet	Outlet	CPVC Tank Part Glass Jar Tank No./Price	Disc Code
1	1-1/2	Slip	Socket	T4001G1612 404.45	169

Nominal US Gallons	Inlet & Outlet Size (in.)	Inlet	Outlet	CPVC Tank Part Polypropylene Jar Tank No./Price	Disc Code
1	1-1/2	Slip	Socket	T4001P1612 291.20	169

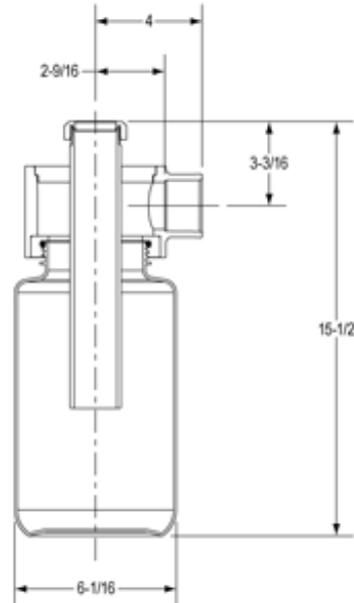
Note: Slip connections are for sink drain tailpiece.



Dimensions



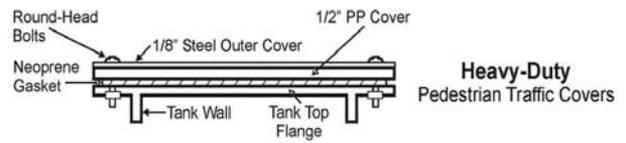
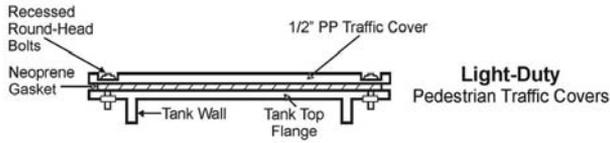
Glass



Polypropylene



**LabWaste™ CPVC Corrosive Waste Drainage System
LabWaste™ Optional Covers**



Pedestrian Traffic Covers

Traffic Covers are priced and ordered separately with tank order in lieu of standard tank cover. Constructed from 1/2" white PP with recessed bolts and anchoring nuts. Covers are designed for light pedestrian traffic and flush floor installation.

Heavy-Duty Pedestrian Traffic Covers

Traffic Covers are priced and ordered separately with tank order in lieu of standard tank cover. Constructed with 1/8" steel, primer coated, over 1/2" white PP with round head slotted bolts and anchoring nuts. Heavy-Duty Traffic Covers are designed for heavy pedestrian traffic and flush floor installation.

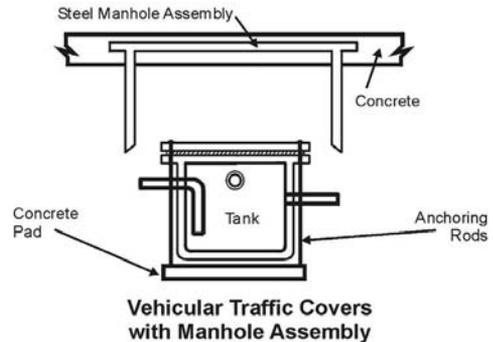
Part Number	Tank Size Range	List Price Each	Disc Code
PTC-5	5-gal thru 55-gal	735.38	169
PTC-100	100-gal thru 300-gal	882.44	169
PTC-350	350-gal thru 650-gal	1,250.13	169
PTC-1200	1200-gal thru 3000-gal	2,206.12	169

Part Number	Tank Size Range	List Price Each	Disc Code
HPTC-5	5-gal thru 55-gal	1,470.74	169
HPTC-100	100-gal thru 300-gal	1,911.95	169
HPTC-350	350-gal thru 650-gal	2,500.25	169
HPTC-1200	1200-gal thru 3000-gal	4,412.22	169

Vehicular Traffic Covers

Vehicular Traffic Covers are priced and ordered separately with tank. Covers are constructed from minimum 3/8" Diamond Plate steel supported by an external steel frame. Standard tank covers are used on tanks located below these steel manhole assemblies. Requires concrete pad below tank. Check with factory for frame height (may be extended in the field).

Part Number	Cover Size	Tank Application	Approx. Wt.(lbs.)	List Price Each	Disc Code
VTC18R	18" round	Fits 5-gallon units	100	735.38	169
VTC24S	24" square	Fits 5-gallon units	100	1,029.52	169
VTC30R	30" round	Fits 15 & 30-gallon units	150	1,456.02	169
VTC30S	30" square			1,456.02	169
VTC36R	36" round	Fits 55-gallon units	200	2,059.04	169
VTC36S	36" square			2,059.04	169
VTC42R	42" round	Fits 100, 150 & 175-gallon units	300	2,941.46	169
VTC42S	42" square			2,941.46	169
VTC48R	48" round	Fits 200 & 300-gallon units	400	3,676.85	169
VTC48S	48" square			3,676.85	169
VTC54R	54" round	Fits 275-gallon units	500	5,882.96	169
VTC54S	54" square			5,882.96	169
VTC60R	60" round	Fits 350, 550 & 650-gallon units	750	6,618.33	169
VTC60S	60" square			6,618.33	169





Optional Inspection Manhole Ports & Tank Extensions

Manhole Assemblies are priced and ordered separately with tank order in lieu of standard tank cover. Assemblies include matching covers, Neoprene gaskets and stainless steel nuts, bolts, and washers; fabricated into the standard tank cover.

Part Number	Manhole Size	List Price Each	Disc Code
MH180	18	1,176.60	169
MH110	11	764.79	169
MH060	6	573.58	169
MH040	4	441.22	169

Tank Extensions

Tanks may be special ordered with extensions to increase the overall height of the tank. Extensions ranging from 1" to almost two (2) times the tank height are at a charge of double the list price for the basic tank. For example, a 55-gallon tank has a height of 36". Extended tank heights of 37" to 70" are twice the price of a standard 55-gallon tank. For higher extensions, contact Spears®. Special covers are needed for flush floor, in-ground installations. Standard covers are not designed for any traffic or load bearing.

Limestone Chips for Acid Neutralization Tanks

Most state and local codes require the addition of a neutralization medium in acid waste tanks with the addition of water for dilution prior to discharge into a sanitary sewer system. Limestone must be 1" to 3" in diameter with a calcium carbonate content of at least 90%. Spears® offers high grade Limestone Chips having a calcium carbonate content of approximately 95%. The use of Limestone Chips is generally one of the best and least expensive means of acid neutralization, but may be used in conjunction with more sophisticated chemical treatments if necessary.

How Much to Use: The following is a guideline for pounds of Limestone Chips to use for one (1) tank filling (charge). It is recommended that sufficient quantity be ordered for more than one filling.

Tank Size (gallons)	Approx. Pounds
5	50
15	100
30	200
55	500
100	1,000
150	1,750
175	1,900
200	2,500
275	3,200
300	3,200
350	4,000
500	5,000
550	7,500
650	9,000
1200	11,000
2000	16,000
3000	25,000

Maintenance: Tanks should be inspected routinely for accumulation of precipitated sludge and debris that must be cleaned out (usually scooped out) and for periodic addition of limestone and water if necessary. While once every one to three months may be sufficient, professional assistance should be sought to establish a proper schedule based on actual use. Note: Tank must be filled with water prior to carefully adding Limestone Chips to charge the system. Request instruction sheet.

Standard 50-lb. Bags Regular & Dolomitic Limestone

Limestone Chips are conveniently packaged in 50-lb. plastic bags but may be special ordered loose. Actual bag weight may vary by + 15%. Special dolomitic limestone is used for wastes predominantly composed of sulfuric acid (battery acid). Allow three to five weeks delivery.

Part Number	List Price Each				Disc Code
	1-4 bags	5-20 bags	21-39 bags	40 & up bags	
Regular Limestone					
RLC-50	73.54	66.19	58.82	44.11	169
Dolomitic Limestone					
DLC-50	147.07	132.36	117.66	88.25	169