

# Water & Waste Management

AAAA

Think Tanks. Think Norwesco. 2011 Edition Whether you're looking for a below ground septic or cistern tank or an above ground water tank, you're sure to find it among our wide selection. The rotational molding process allows for a one-piece, seamless tank that is rugged and impact resistant. Our tanks are manufactured to strict quality guidelines to ensure years of high-performance use.

Quality, price, product line and leading edge technology make NORWESCO North America's largest manufacturer of rotationally molded tanks.

#### **Norwesco Polyethylene Septic Tanks**

The world's leading manufacturer of polyethylene tanks, NORWESCO has been producing polyethylene septic tanks since 1980. With that kind of experience, NORWESCO offers you proven products that you can count on for years of dependable, trouble-free service. NORWESCO septic tanks are backed by a full three-year warranty and have been approved by state and local health departments from coast to coast. Where applicable, NORWESCO septic tanks have been approved by both IAPMO<sup>™</sup> and CSA<sup>™</sup>.

Please consider the following features when you are looking to purchase a septic tank and you'll find that NORWESCO tanks will exceed your expectations when it comes to performance and longevity.

#### Ease of Installation

For septic system replacement and new home construction, NORWESCO's polyethylene septic tanks are designed for durability and quick, easy installation. Any NORWESCO septic tank can be transported to the job site in a pickup truck and carried by just two people. This enables you to install the tank on your schedule.

#### **Rotationally Molded, One-Piece Construction**

NORWESCO septic tanks are manufactured by means of the rotational molding process which produces a one-piece, seamless, watertight tank.

#### **Superior Strength Design**

The rib design and rib placement provide superior structural integrity to the tank.

#### **Excellent Chemical Resistance**

Polyethylene is unaffected by soil chemicals and by the chemicals and gases present in sewage, so NORWESCO septic tanks will not rust or corrode and require no additional coatings as other tanks do. NORWESCO's strict quality guidelines ensure an environmentally safe septic tank.

#### **Single or Double Compartment**

Our 750, 1000, 1250 and 1500 gallon tanks are available as single compartment or double compartment tanks (2/3 - 1/3). Prior to installing any septic tank, you should check with your local health department for specific requirements that your county or state may enforce.

#### **Pre-Plumbed / Ready for Installation**

NORWESCO septic tanks (750 gallons and larger) are shipped to you ready for installation. Our pre-plumbed tanks include tee assemblies installed at the inlet and outlet. Tees are sized/cut according to each state code so the tank that you receive will be ready for installation.



#### Watertight Lid

NORWESCO septic tanks come

outfitted with a domed lid. This improved design is significantly stronger than other lid designs. When leaving our factory, the lid is attached to the tank with stainless steel screws and comes standard with a foamed, polyethylene gasket between the lid and the tank. The gasket

Pre-plumbed at inlet and outlet.

Standard polyethylene gasket makes domed lid watertight.

#### **Accessories Available**

Manhole extensions and lid-riser combinations are available to bring tank access to grade and to meet code specifications.

provides a watertight seal at the lid area.

#### **Norwesco Polyethylene Septic Tanks**

NORWESCO septic tanks are for BELOW GROUND USE ONLY. Using the tanks above ground may result in deformation of the tank. It is far more cost-effective to utilize one of NORWESCO's above ground tanks that are specifically designed for above ground use and applications.

The tanks described and shown on this page, with the exception of "The Bruiser" and Holding Tank, cannot be used as pump tanks and must be kept full at all times.

Please see detailed installation procedures found on page 6 for additional information.

Across the United States and Canada, there are a number of health code requirements that our tanks must meet. These codes are regulated by the state, county or province where you are located. To aid you in determining which tank you need, please consult with your local health department.

#### **Septic Tanks**

Gallon Capacity	Length	Width	Overall Height	Height To Inlet	Height To Outlet	Manhole Diameter	Compartment Availability
500	101"	51"	47"	36"	33"	1-20"	Single
750	96"	52"	62"	51"	48"	1-20"	Single
750	96"	48"	63"	52"	49"	2-20"	Single
750	100"	52"	59"	49"	46"	2-20"	Single
750	100"	52"	59"	49"	46"	2-20"	Double
1000	101"	52"	71"	59"	56"	1-20"	Single
1000	102"	60"	63"	51"	48"	2-20"	Single or Double
1250	116"	55"	70"	59"	56"	2-20"	Single or Double
1500	135"	55"	70"	59"	56"	2-20"	Single or Double

**1000 Gallon 1-Manhole Septic** 

**500 Gallon Septic** 

**1000 Gallon 2-Manhole Septic** 

**1250 Gallon Septic** 

Part numbers vary depending upon state approvals. Please contact Norwesco Customer Service for part numbers/information.

#### **The Bruiser**

The Bruiser offers the same features as our standard septic tanks but it may be used as a septic tank as well as a holding tank, pump chamber or a potable water tank (single compartment only).

- No special backfill is needed. Native soil may be used.
- Use where delivery of special backfill mixtures and water is next to impossible.
- No need to fill with water during initial installation.
- Pre-plumbed according to state code.
- Accepts 4" effluent filters.
- Suitable for use as a potable water tank (single compartment only).

Gallon Capacity	Length	Width	Overall Height	Height To Inlet	Height To Outlet	Manhole Diameter	Compartment Availability
750	96"	52"	62"	51"	48"	1-20"	Single
1000	102"	60"	63	51"	48"	2-20"	Single or Double
1250	116"	55"	70"	59"	56"	2-20"	Single or Double
1500	135"	55"	70"	59"	56"	2-20"	Single or Double

Part numbers vary depending upon state approvals. Please contact Norwesco Customer Service for part numbers/information. Limited availability. Please contact Norwesco Customer Service for additional information.

#### **Below Ground Holding Tank**

The 2000 and 2500 are the largest capacity below ground storage tanks made today. Typically used to store water-both potable and non-potable-it can also be used as a large capacity septic tank. The end ribs will accept fittings up to 4" in size. Integral columns in the tank give it excellent structural strength.

Gallon Capacity	Length	Width	Overall Height	Manhole Diameter	Part No.
2000	126"	98"	53"	1-20"	42559
2500	158"	98"	53"	1-20"	42119

For installation details, please visit www.norwesco.com.

TATERCERFER ....

**1500 Gallon Septic** 

**1000 Gallon Bruiser** 

#### **2500 Below Ground Holding**

PLEASE NOTE: Tank availability may vary according to manufacturing location. Please contact NORWESCO Customer Service or your NORWESCO distributor for specific details. Tank dimensions and capacities may vary slightly and are subject to change without notice.

#### **Below Ground Tanks**



#### Our 300 and 500 gallon spheres are

designed to be used as a holding tank or pump tank. Unlike our ribbed septic tanks, these tanks may remain in the ground when empty. These tanks are furnished with manhole covers and include a molded-in elevated pump stand on the bottom of the tank.

#### **Below Ground Spherical Pump Tanks**

Gallon Capacity	Diameter	Overall Height	Height To Inlet	Height To Outlet	Manhole Diameter	Part No.
300 Sphere	54"	54"	44"	42"	1-20"	41319
500 Sphere	64"	67"	56"	53"	1-20"	40785

#### **Below Ground Cistern Tanks**

Our below-ground cisterns feature the same rugged, ribbed design found in our septic tanks and are lightweight for ease of transport and installation.

Gallon Capacity	Length	Width	Overall Height	Manhole Diameter	Part No.
325 Cistern Sphere	- <u>-</u>	54" Dia.	54"	1-20"	41321
550 Cistern Sphere		64" Dia.	67"	1-20"	40856
600 Cistern	101"	51"	47"	1-20"	41328
1200 Cistern	102"	60"	63"	2-20"	41329
1400 Cistern	116"	55"	70"	2-20"	41893
1700 Cistern	135"	55"	70"	2-20"	41330

#### 325 Gallon Cistern

**550 Gallon** Cistern

#### 600 Gallon Cistern

**1200 Gallon Cistern** 

**1700 Gallon Cistern** 

Polyethylene water storage tanks are ideal for instances when drinking water must be hauled in or if a well does not meet consumption needs. NORWESCO tanks are manufactured using resins that meet FDA specifications to ensure safe storage of potable water. Where applicable, NORWESCO's have been certified under ANSI/NSF™ Standard 61. The 325 and 550 gallon spheres may remain in the ground when empty. These tanks include a molded-in elevated pump stand on the bottom of the tank. The ribbed tanks (600 gallon and larger) need to be kept 1/4 full at all times.

#### **Above Ground Tanks**



Our selection of above-ground vertical tanks feature tie down slots, built-in graduated gallonage indicators, offset fill-well and self-vented, slosh-proof lids. An installed bulkhead fitting is standard on the above-ground vertical tank. Fittings are available in a full range of sizes to help adapt the tank to suit specific applications. Please refer to page 6 for accessory items.

#### **Vertical Tanks**

Gallon		Overall	Outlet/Drain	Fill	
Capacity	Diameter	Height	Specification	Opening	Part No.
25 Vertical ¤	18"	29"	3⁄4"	5"	41867
50 Vertical ¤	18"	53"	3/4"	5"	41865
65 Vertical ¤	23"	43"	1¼"	8"	45192
75 Vertical ¤	23"	49"	11/4"	8"	41863
100 Vertical ¤	28"	43"	1 <sup>1</sup> /4"	8"	41861
105 Vertical ¤	23"	63"	2"	8"	40803
150 Vertical	30"	56"	<b>1</b> <sup>1</sup> ⁄4"	8"	41859
165 Vertical	31"	56"	2"	16"	40281
200 Vertical	30"	72"	2"	8"	41856
210 Vertical	32"	67"	2"	16"	47401
250 Vertical	30"	89"	2"	8"	41854
300 Vertical	36"	79"	2"	16"	40213
500 Vertical*	48"	73"	2"	16"	40148
550 Vertical	67"	44"	2"	16"	40023
1000 Vertical*	64"	80"	2"	16"	40152
1100 Vertical	87"	53"	2"	16"	40070
1100 Vertical G*	87"	53"	2"	16"	42591
1550 Vertical	87"	67"	2"	16"	40235
1550 Vertical G*	87"	67"	2"	16"	42595
2100 Vertical*	87"	89"	2"	16"	40178
2500 Vertical	95"	91"	2"	16"	40051
3000 Vertical	95"	109"	2"	16"	40754
5000 Vertical	102"	152"	3"/2"	16"	40164
6100 Vertical*	119"	140"	3"/2"	16"	40659
6500 Vertical*	119"	150"	3"/2"	16"	40224
6500 Vertical*	120"	147"	3"/2"	16"	42315
* Limited quailability	For quailability data	ile places visit our v	wahaita at ununu namu		the second s

Limited availability. For availability details please visit our website at www.norwesco.com. ¤ May ship UPS. G=Gusset Top

#### Above Ground Tanks (continued)

#### **Horizontal Tanks**

Gallon Capacity	Diameter	Overall Height	Length	Outlet/Drain Specification	Fill Opening	Part No.	Band Part No.
35 Horizontal ¤	20"	23"	29"	3/4"	5"	45223	60520
55 Horizontal ¤	23"	26"	34"	3/4"	5"	41873	61745
65 Horizontal ¤	23"	26"	43"	3/4"	5"	45191	61745
125 Horizontal	32"	35"	41"	2"	8"	40298	61744
225 Horizontal	38"	41"	49"	2"	8"	40299	60478
325 Horizontal	38"	43"	68"	2"	16"	40217	60478
525 Horizontal*	49"	54"	71"	2"	16"	40181	60057

Bands are optional, 2 per tank. \*Limited availability. For availability details, please visit our website at www.norwesco.com.

#### **Pickup Tanks**

Gallon Capacity	Top Width or Diameter	Bottom Width or Diameter	Overall Height	Outlet/Drain Specification	Fill Opening	Part No.
210 Pickup	60"/51"	48"/39"	29"	2"	8"	40300
325 Pickup	62"	49"	33"	2"	8"	40160
425 Pickup	65"	49"	39"	2"	8"	40102

#### **Mini Bulk Tanks**

Gallon		Overall	Outlet	Fill	
Capacity	Diameter	Height	Specification	Opening	Part No.
120 Mini Bulk	38"	31"	2"	5"	40318
220 Mini Bulk	42"	44"	2"	5"	40320

#### **PCO Tanks**

Gallon			Overall	Outlet/Drain	Fill	
Capacity	Length	Width	Height	Specification	Opening	Part No.
30 PC0 ¤	25"	19"	23"		5"	41254
50 PC0 ¤	38"	19"	22"	-	8"	40664
100 PC0 ¤	38"	30"	28"		8"	40668
150 PC0	48"	36"	28"		8"	40669
200 PC0	48"	36"	37"	-	8"	41413
300 PC0	69"	36"	37"		16"	41381

¤ May ship UPS.

#### **Specialty Water Tanks**

Gallon			Overall	Outlet/Drain	Fill	
Capacity	Length	Width	Height	Specification	Opening	Part No.
250 Freestanding*	62"	29"	40"	<b>1</b> <sup>1</sup> ⁄ <sub>4</sub> "	16"	42337
300 Freestanding*	62"	29"	48"	11/4"	16"	41869
400 Freestanding*	63"	30"	68"	11⁄4"	16"	41247

\* Limited availability. For availability details, please visit our website at www.norwesco.com.

#### Water Hauling Tanks (ABOVE GROUND USE ONLY)

Gallon Capacity	Length	Width	Overall Height	Outlet/Drain Specification	Fill Opening	Part No.
1250*	130"	81"	38"	2"	16"	40756
1275*	126"	84"	36"	2"	16"	43011
1500*	130"	81"	44"	2"	16"	41392
1600*	126"	84"	42"	2"	16"	43013

\* Limited availability. For availability details, please visit our website at www.norwesco.com.

#### **Elliptical Leg Tank**

Gallon Capacity	Length	Width	Overall Height	Outlet/Drain Specification	Fill Opening	Part No.
3135*	150"	88"	80"	3"/2"	16"	40686

This tank requires full length support as well as 4 support bands. Band part number is 62097 (OH, GA) or 63620 (CA, UT, MN, OK, TX). \* Limited availability. For availability details, please visit our website at www.norwesco.com.





**210 Gallon Pickup** 



**Mini Bulk** 





Freestanding





PLEASE NOTE: Tank availability may vary according to manufacturing location. Please contact NORWESCO Customer Service or your NORWESCO distributor for specific details. Tank dimensions and capacities may vary slightly and are subject to change without notice.



C

D









J

### **Norwesco Tank Accessories**

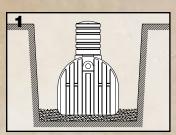
#### Above Ground Tank Accessories

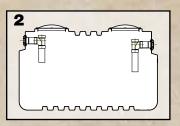
Description	ltem Code	Hole Size Required In Tank for Installation	Part No.
$\frac{1}{2}$ " Heavy duty double threaded polypropylene fitting	A	17⁄16"	62834
<sup>3</sup> / <sub>4</sub> " Double threaded polypropylene fitting	Α	17/16"	60401
<sup>3</sup> / <sub>4</sub> " Heavy duty double threaded polypropylene fitting	Α	15/8"	62798
1" Double threaded polypropylene fitting	Α	21/4"	60427
1 <sup>1</sup> / <sub>4</sub> " Double threaded polypropylene fitting	Α	21/4"	60403
1 <sup>1</sup> / <sub>4</sub> " Anti-vortex polypropylene fitting		21/4"	63065
11/2" Double threaded polypropylene fitting	А	3"	60124
2" Double threaded polypropylene fitting	Α	3"	60405
2" Double threaded 316 SS fitting, less gasket		3"	61767
2" Standard duty double threaded polypropylene fitting (Maximum tank wall thickness = $3\%$ ")	2.12	3"	63481
2" Heavy duty polypropylene fitting	В	3¼"	63683
2" Self-aligning double threaded polypropylene fitting (Designed to install in dome of vertical tank above the liquid level)		4½"	63668
3" Double threaded polypropylene fitting	C	41⁄2"	62299
4" Double threaded polypropylene fitting	S	5 <sup>3</sup> ⁄4"	62171
22" Lid and ring with air vent		1.00	63679
16" Lid and ring with blue snap-in vent	D	8	63485
Blue snap-in vent for 16" lid (63485)			63539
16" Lid, ventless with ring		No. of Concession, Name	60367
16" Lid, ventless	E	and the second	60365
16" Ring only	100	in the second second	60012
16" Hinged lid with ring & vent		11. 17 State	62532
16" Hinged ventless lid, with ring	1.1.2		63390
8" Lid with blue snap-in vent	F		63480
Blue snap-in vent for 8" lid (63480)	14.7		63482
5" Lid with ball check air vent	G		63484
5" Lid with 2" FPT (does not include vent cap)			63264
EPDM gasket for 5" lid, 63264 or 63484	1	R. B. Cont	60366
2" MPT vent cap with poly screen			63266
18" lanyard for 8" lid and 16" non-hinged lid (tethers lid to tank)		A BURNER AND	62531
Ethafoam gasket for 16" non-hinged lid			62941
Stainless steel screw for 8" and 16" rings			60081
Standard gasket for bulkhead fittings is EPDM; viton gaskets are available	1.00	- K. B. and	T.L.

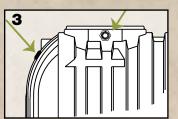
#### **Below Ground Tank Accessories**

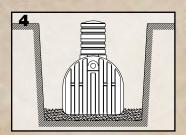
	Item			
Description	Code	Part No.		
Manhole extension (6"H x 20"D)	63514			
Manhole extension (15"H x 20"D)	62397			
Manhole extension (24"H x 20"D)	62396			
Lid & riser combination (12"D x 25"H riser pipe)	15 M 16 18	62395		
20" Septic/cistern tank lid with gasket	J	62408		
SDR35 Sanitary Tee & Gasket Kit (2 each)	61762			
Schedule 40 Sanitary Tee & Gasket Kit (2 each)	61763			
SDR35/Schedule 40 Gasket Kit (2 each)	61765			
Stainless steel self-tapping screw (#14 x 11/4") (4 needed for 624	62406			
Stainless steel self-tapping screw, childproof (required for tanks installed in NM & WI)				
Tamper proof screw kit for tanks installed in NM & WI		1000		
(Includes 8 stainless steel self-tapping childproof screws and	63564			
Ethafoam gasket for 20" lid (62408)	62942			
Septic Adapter SDR35 with nut and EPDM gasket	63151			
Septic Adapter Schedule 40 with nut and EPDM gasket	63152			
EPDM gasket for septic adapter				

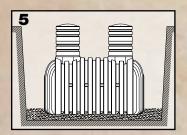
#### **Underground Tank Installation Instructions**











#### **1. Excavation**

- Excavate to a depth that will provide a minimum of 6" and a maximum of 30" of cover over the top of the tank. This will avoid collapse and over-expansion of the tank and possible leakage.
- Allow 18" to 24" on both sides and both ends of the tank. Failure to comply with allowance ranges could cause tank collapse.
- Bed the tank in well-packed sand 6" minimum in soil terrain, 12" minimum in rock terrain. The tank should be installed level.

#### 2. Septic and Bruiser Tank Inlet/Outlet Connections

- Septic tanks, 750 gallon and larger, and blue BRUISER tanks are supplied with PVC sanitary tees and adapters at the inlet and outlet.
- The PVC adapter has two sockets for use with either 4" schedule 40 pipe or 4" SDR 35 pipe.
- Inlet and outlet piping should be solvent welded to the adapters using standard PVC cement.
- Tanks without PVC adapters (300 Sphere, 500 Sphere and 500 Septic) use part number 61765 gasket kit.

#### **3. Water Tank Connections**

- Install bulkhead fittings in either side of manway or end rib as shown.
- Tank must be vented.
- For water-tight seal, lid should be sealed with silicone caulking. Re-use stainless steel screws supplied with lid.

#### 4. Manhole Extensions

- Install manhole extension before you backfill.
- Manhole extensions are supplied with gaskets and screws. Re-use the lid gasket and screws to attach the lid at the top of the manhole extension.
- Note the direction of flow. The inlet is higher than the outlet.

#### **5. Backfilling Exterior**

- CAUTION: Fill tank with water as your backfill, keeping water level even with backfill level as you go to prevent possible collapse.
- Backfill with 12" layers and compact each layer. ALWAYS COMPACT ENDS FIRST.
- Tamp and compact backfill under inlet and outlet pipes.
- Maximum backfill over the top of the tank is 30". Mound soil over the top to provide positive drainage.

#### **6. Backfill Materials**

The preferred material for backfill surrounding and covering the tank is a sand/gravel mixture as described below. For blue BRUISER tanks and white cistern tanks, native soil may be used for backfill and those tanks may be left empty while backfilling. For yellow and black septic tanks, the sand/gravel mixture is required and the tanks must be filled with water during the backfilling process. BRUISER tanks and cistern tanks should be filled one-fourth full after installation.

- The sand/gravel mixture should be a mixture of sand and gravel, 100% smaller than  $1\frac{1}{2}$ ", and about 50% smaller than  $\frac{1}{4}$ ".
- All fill should be free of any wood, masonry debris, silt or clay.

## For septic installations, it is important to contact your local or state sanitarian regarding approved installation procedures.

#### CAUTION - Failure to comply with the points below voids warranty.

- A. Do not install any tank in water saturated clay or in high water table. The tank may collapse and its contents will escape.
- B. Tanks are not fire-resistant. Do not store them near an open flame or heat in excess of 180°F.
- C. Do not install any tank under the path of vehicles or heavy equipment.
- D. If a yellow or black septic tank is pumped for normal maintenance, it should be refilled immediately. If a blue BRUISER tank or a white cistern tank is pumped empty, it should be refilled to one-fourth of capacity. Spherical 300 and 500 gallon tanks may be left empty.
- E. Norwesco yellow and black septic tanks, blue BRUISER tanks, and cistern tanks are designed only for use as underground tanks.
- F. Norwesco yellow or black septic tanks, with the exception of the 300 and 500 gallon spherical tanks, cannot be used as holding tanks or pump tanks because the tank may collapse if it is left empty underground. *Blue BRUISER tanks, white cistern tanks, and 300 or 500 gallon spherical tanks can be used for holding or pumping applications where permitted by local codes.*
- G. White cistern tanks and blue BRUISER tanks are made of resins that meet FDA specifications for the storage of drinking water and can be used for that application. Yellow septic tanks and black septic tanks must not be used for drinking water.
- H. Protect the tank from sharp objects which could puncture it and cause leakage.

Norwesco advises against the use of a plastic underground tank for ANY other uses! Such uses would void any Norwesco product warranty either stated or implied. In no event shall Norwesco be held liable for any consequential damages.



#### **Manufacturing and Distribution**

Tank dimensions and capacities may vary slightly and are subject to change without notice.

- B. St. Bonifacius, Minnesota
- C. Lancaster, Ohio
- D. Griffin, Georgia
- E. Shawnee, Oklahoma
- F. Tooele, Utah

- G. Owego, New York
- H. Washougal, Washington
- I. Sheldon, Iowa
- J. Washington Court House, Ohio
- L. Hanford, California

- M. Edmonton, Alberta-Canada
- 0. Saskatoon, Saskatchewan-Canada
- Q. Edmonton, Alberta-Canada
- T. Fairfield, Texas
- X. Albertville, Alabama

And the second sec

#### Warranty

Norwesco offers a three year warranty from date of manufacture on tanks shown in this brochure. Should a defect appear within the warranty period Norwesco will supply a new, equivalent tank in replacement thereof. Norwesco's liability is limited to the value of the tank itself and specifically excludes the cost of installation and/or removal or consequential damages. Please contact your chemical supplier or Norwesco Customer Service for chemical resistance information.



4365 Steiner Street P.O. Box 439 St. Bonifacius, MN 55375-0439 Tel (800) 328-3420 Fax (800) 874-2371

Tank dimensions and capacities may vary slightly and are subject to change without notice. ©2010 Norwesco, Inc. WW5M1010

www.norwesco.com