

# Technology



## FREQUENTLY ASKED QUESTIONS

#### Why the 19" (48cm) manway instead of a 16" screw top?

The Flextank Patented Dexter Lid System is leak proof and does not need a special tool to close like screw top tanks. This system also purges all air from the tank when topped off and will not leave any trapped air as normal for screw top lids. Much easier to clean with no threads to clean and sanitize; overall just a better system.

#### How are Flextank<sup>®</sup> vessels made?

The bodies of each vessel are made through the process of rotational molding. The unique resin was fully researched and tested. Metal inserts may be molded into the vessel as required to affix accessories, such as valve flanges. Flextank valve flanges require a force in excess of one ton to tear them out of the vessel.

#### How does oxygen permeate the vessel and get into the wine?

Oxygen enters each Flextank vessel through the vessel walls. Polyethylene is oxygen permeable. Oxygen is driven across the tank wall by the partial pressure differential between the wine and the atmosphere. Upon permeating into the wine the oxygen is used up by the complex chemical changes that occur during maturation.

#### Can all polyethylene vessels be used for winemaking?

Obtaining the required permeability for winemaking is what makes Flextank vessels unique. There are many vessels/tanks on the market that are made of polyethylene. However, not all vessels made of this material are created equal in the world of winemaking. Flextank vessels have been carefully engineered with special attention given to the selection and blend of the resin that is used, the surface area to volume ratio, wall thickness and configuration of each vessel. It is these details that make Flextank vessels ideal for use in winemaking.

#### How does the oxygen permeability of Flextank vessels compare to that of traditional oak barrels?

Flextank's maturation weight vessels are designed to have a similar oxygen permeation rate to that of a typical second year wine barrel, when used at a nominal cellar temperature of approximately 13°C. Heavyweight vessels are simply heavier vessels with thicker walls. Oxygen permeation rates are about half that of the maturation vessels and are comparable to "neutral" barrels.

### Will Flextank vessels taint my wine?

Modern catalyst technology has produced food grade polyolefins that are extremely stable polymers. Polyethylenes from this group are widely used in the food and beverage industry in manufacturing processes, transport and storage. Flextank products are made from carefully selected quality materials that meet both FDA and European Food Safety Standards. There have been no reports of taint following their use in thousands of wineries.

#### Can I use Flextank vessels for making white wine?

Originally designed for red wine maturation, Flextank vessels are increasingly used in the production of white wine. Winemakers have used both the regular maturation weight vessels and "heavyweight" vessels in white wine production.

#### Are Flextank vessels environmentally friendly?

Flextank aims to keep its environmental impact as minimal as possible. In line with that aim, all of our polyethylene vessels are fully recyclable. Similarly, all metal accessories are also fully recyclable. Flextank vessels also clean very easily and require much less water for effective cleaning than similar capacity vessels made from wood or stainless steel.

#### Where are Flextank vessels manufactured?

All of our tank products are manufactured in Vancouver, Washington USA. Easily shipped from one of our many stocking facilities nationwide.



Flextank oxygen permeable vessels have replaced oak barrels for passively aging and softening wine.

# **Newest Tanks**

## **SDM120**

120 gallons (454 Liters)



## DM120 120 gallons (454 Liters)



The 120 gallon DEXTER 120 Maturation Tank is a new larger version of the popular 80 gal DEXTER 80. The versatile tank finds use as a small batch fermentor as well as maturation storage.

Shown at the right without any accessories.







## **APOLLO**

230 gallons (870 Liters)



The Egg shaped "APOLLO" brings new versatility to wine making. Use as a primary fermentor and as a storage/ maturation vessel. Eject pomace straight into the press using our forklift mounted pickup and rotation accessory.

> The stainless steel clamp man way closure features a US patented "Dexter" lid design to eliminate ullage. The opening at 48cm. (19 in.) diameter is large enough for the average person to enter the tank if required.



The ALS1 is a simple but elegant solution for lifting Flextank's "Apollo" fermentor and tipping pomace into a bin or press basket

## **ORION**

528 gallons (2,000 Liters)

Flextank's New ORION tank is the big brother of the APOLLO tank, incorporating patent pending egg-shaped features our customers have wanted in a larger tank.... and the GALAXY is even bigger.





## **STACKER**

240 & 300 gallons (910 & 1,135 Liters)

The 300 gallon STACKER tank (and a 240 gallon version) features a stacking cage that allows convenient movement or stacking with a fork truck up to three high. The tanks may also be elevated on a fork truck to facilitate gravity racking.





The STACKER is supplied as shown ready to fitted with a wide array of accessories. Visit our website details.

When stacked 3 high the STACKER can be be used for extraordinary space utilization.



Stainless steel clamp man way closure features a US patented "Dexter"lid design



All Flextanks offer unmatched control over additives and staves for taste control.





## **FLEXTANK CELL**

570 gallons (2,160 Liters)



The FLEXTANK CELL is designed to provide excellent space utilization when set up in rows and stacked 2 high. Each unit measures 100 in. (2540 mm) high, 82 in. (2100 mm) wide and 29 in. (750 mm) deep. They include fork truck pockets. As single units they often fit into small spaces unsuited to other uses.

## **DEXTER 200 & 300**

200 & 300 gallons (755 & 1,135 Liters)



The DEXTER
200 or 300 offer
excellent access
through the 19 inch
diameter clamp
lid for cleaning
and oak adjunct
management. All
DEXTER Series
can be fitted
with a variety of
accessories to fit
your exact need.

# **DEXTER 50**50 gallons (190 Liters)



The 50 gallon DEXTER 50 is our smallest tank with the 19 inch diameter clamp lid. This versatile tank may be used for primary and secondary ferments as well as maturation storage.

The PL1 Racking Pallet with contoured center "lug" option adds handling ease with fork truck or pallet jack and allows space efficient storage on pallet racking.>

## **DEXTER 80**

80 gallons (300 Liters)



The 80 gallon DEXTER 80 Maturation Tank is sized to accommodate average juice yield from 0.5 ton of grapes and fit efficiently into transportation and storage systems. Versatile tank finds use as a small batch fermentor as well as maturation storage.

Shown at the left without any accessories.

Sturdy center post assures stability.

The stainless steel clamp man way closure features a US patented "Dexter" lid design.



Principally designed as an economic replacement for oak barrels that fits within standard transportation and storage systems. These tanks are not as versatile as the similarly sized "Dexter" 80s with their 19 in. top opening but are a good option if wine maturation is the principal intended use. 6in. diameter opening provides access for cleaning and oak adjunct addition and removal.

## ECO 15 15 gallons (57 Liters)



The EM15 is our new 15 gallon Flextank designed for smaller batches, home use, experimenting and topping. It is totally fitted with a quality stainless steel 1/2" ball valve, hose barb and ferment lock.

## **ECO 30**

### 30 gallons (110 Liters)



The ECO 30 is popular with home winemakers and used in larger establishments for experimental lots and topping wine. The tank shares the performance attributes of our larger Maturation tanks. The 6 inch opening provides great access for cleaning or addition and removal of oak adjuncts. The lid opening is large enough to use this tank as a punch down red fermentor.

These tanks can be worked entirely through the top opening or using a full range of high quality valve accessories. Moldedin inserts provide rugged and reliable valve attachment.

## ECO 70 70 gallons (265 Liters)



A lower cost alternative to a similarly sized Dexter 80.

## ECO 200 & 300

### 200 & 300 gallons (755 & 1,135 Liters)



This 200 or 300 gallon self supporting cylindrical tank offers good value in dollars per gallon terms. Adequate access through the 6 inch diameter screw cap for cleaning and oak adjunct management.



DH500 Dexter Maturation Tank

500 gallons (1,900 Liters)

Finally a 500 gallon tank designed specifically for long term storage of wine, cider, mead and other beverages. Has provisions for either a Racking port or bottom drain valve, locations for a sample valve and Thermowell. Pair this with our P48 reinforced racking pallet to protect the tank long term. At 93" tall and at 42" in diameter the tank has the correct aspect ratio and our lid system which purges all of the O<sub>2</sub> from the tank when topped off.



**F900** 900 gallons (3,400 Liters)



Traditional open top fermenting in a vessel made from modern easy to clean polyethylene material. Principally intended for red ferments, punch down may be achieved manually or with a fork truck mounted plunger. This is a robust vessel and strong enough to accommodate a plank across the top to stand on with a hand plunger-observe safety precautions and do not work alone.

The lid fits over the tank on a taper and protects the ferment from fruit flies etc. There is a 2-inch threaded bung at the top center of the lid for additional attachments.

Molded in "Flats" in the bottom of the tank provide for valve fittings and prevent the tanks jamming together when stacked for storage or transport.

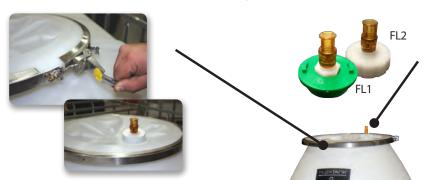




## Accessories bring convenience and can be added to all models

Pick a Base Tank, then add accessories!





included with Dexter series tanks

#### **Temperature Probe**



P37 - Pallet



with Flexchill accessories.

#### Jacketed & chilling control Lower your costs, improve profits and get great cooling control with less effort



#### Add a Drain Valve

Butterfly valves may be ordered separately (Cat. Nos. BV1 and BV2) or as a kit that includes a Tri- Clamp gasket and clamp. (Cat. Nos. BV3 and BV4) A completed valve installation shown to the left. A complete installed valve kit is shown in drain area; VK3 or VK4.

## Add a Ferment Lock

The Cat. No. FL1 and FL2 are ferment locks that are a one way pressure release valve that screws into the 2 inch (50 mm) threaded bung hole in the tank lid. The kit includes a bung and adapter. FL1 are used on all Eco tanks and Dexter series tanks prior to May 31, 2014. FL2 are used on all Dexter series after 05/31/14.

#### Choose a Sample Valve

Flextank's patent pending micro-sample valve (Cat. No. SV3 or new SV1T) is a spring loaded valve that screws into a molded-in 18mm stainless steel insert. After sampling the internal wine path may be flushed before applying the dust cap. An actuation tool is included. The valve may also be used to backflush inert gas into the tank. The SV1T offers an alternate conventional thumbwheel sampling valve which attaches via the same stainless steel insert.





SV1T



# Racking Port Kits / RP1VF & RP2VF

Rotating racking elbow in 1" or 1.5" tubing with butterfly valve VK3.



#### Add an ALS1

Lift brackets and ALS1 facilitate rotation with a fork lift to dump lees & pomace.



#### Floating Barrier Seal (FlexSkin)

Protect the surface of your wine in partial fills with re-designed oxygen barrier.



## Supa Tuff<sup>™</sup> Bins

The "SupaTuff" solid-wall harvest or ferment bins come in two sizes (160 & 300 gallon / 606 & 1,135 liters), and (3) different base styles to choose from. All are compatible with forklift and pallet-jack equipment, and share a common foot-print. SupaTuff bins are nest able when empty allowing for space saving off-season storage, and efficient backhaul..

The "S" model bin is a molded one-piece bin and lid with (7) legs that raise the bin for easy forklift/pallet-jack access. With the legs being molded into the bin they will be hollow and noticeable when looking into the bin. This is the standard base model and can be used for many applications.

The "F" model includes a molded flat bottom bin & lid, with a bolted on (7) leg pallet base. This style bin eliminates the hollow pockets resulting in a flat bottom bin which is hygienic and easy to clean surface.

The "R" model is similar to the "F" series with the flat bottom bin, but comes with a rotatable pallet base with fork-pockets. The fork pockets allow for the bin to be easily rotated in a safe and secure manner.

#### Features:

- FDA Approved polyethylene resin
- · Bins come standard with stack lids
- 4-way forklift and 2-way pallet-jack entry
- One-piece construction, seamless and easy to clean (SP160S & SP300S)
- Ideal for small batch fermentation (1/2 Ton and 1 Ton)
- SP160 nest (8) high / SP300 nest (4) high empty, w/ lids for shipping
- SP160 & SP300 compatible for stacking and nesting













	SP160S	SP160SHD	SP160F	SP160R	SP300S	SP300F	SP300R
Volume (Gallons/Liters)	160/606	160/606	160/606	160/606	300/1135	300/1135	300/1135
Capacity (Lbs)	1,000	1,500	1,000	1,500	2,000	2,000	2,000
Tare Weight	80 lbs	95 lbs.	110 lbs.	113 lbs.	147 lbs.	170 lbs.	175 lbs.
OD Dimensions (52"x 45"x height")	30"	29"	31″	32"	48"	50″	51″
Stacking (Full)	(3) high	(3) high	(3) high	(3) high	(2) high	(2) high	(2) high
Empty / quantity nested W/ Lids	(12)	(12)	(10)	(8)	(4)	(4)	(4)

S= Flat Bottom White, F= Flat Bottom Black, R= Rollover Black Bottom, HD= Heavy Duty Wall Thickness

## **Testimonials**

Website contains testimonials from many Award Winning Wineries





Richard received his Ph.D in Plant Physiology in 1973 from the University of California, Riverside. After a stint in academia he bought a winery in California that he sold in the early 80's. Subsequently he started Vitis Research,

Inc. a consulting company to wineries and wine industry

suppliers. He has helped wineries with many issues with respect to growing and making world class wines. Ultimately in 2002 he started his own winery brand Tamanend Winery and as an Alternate Premises winery facility he produces wines for himself and up to eight other wineries.



Richard Carey, PhD, Winemaker, Tamanend Winery

Download his reprint "Advances in Premium Wine Storage and Maturation" from the July 2015 issue of CRUSH Magazine from the website

Now, the use of plastic tanks gives winemakers an even better container for more accurate control of a wine's development at a fraction of the cost of a barrel...

"Flextanks are an integral part of our winemaking program and have been since the 2008 harvest, when a fellow winemaker suggested them. We bought one 300 gal Flextank Stacker, used it for a year, loved the results and immediately purchased a half dozen more. (read more on the website)

Squire Fridell 2014 & 2015 President Sonoma Valley Vintners & Growers Alliance

Winemaker, Vineyard Manager CEO, CFO, COO, EIEIO, WINO and Janitor GlenLyon Vineyards & Winery Two Amigos Wines





Watch the Short Video on the website on why a historic winery now is using state-of-the art technology "We first came across Flextank's Apollo tanks on a visit to Napa in 2013, and were fortunately able to source them in through Rock Steel Imports for the 2014 vintage in South Africa.

We started with a couple of Apollo tanks for the 2014 vintage, but were so impressed with them that we now have 12 of them at our cellar.

We love their versatility, high levels of hygiene and purity they bring to our wines.

They are perfect for fermenting both white wine and red wines on the skins, they are extremely easy to clean and keep full, and the fact that we get oxygen permeability without oak influence really works well with our approach of trying to make wines that express a sense of place.



The Apollo tanks are also perfect for small batch experiments where we want to test a new vineyard, or winemaking technique, but want to ensure the lowest volatility or other faults in the wine. It's often hard to maintain the highest possible quality on small batches, but our Apollo tanks consistently deliver."

Andrea Mullineux, "Wine Enthusiast", Wine Maker of the Year Mullineux & Leeu Family Wines

"Your product has enabled me to have complete control of pristine sanitation practices inside and outside the vessel. Cost effective reusability for many years without wine compromise experienced with used barrels. Sampling for testing is now quick, simple and sanitary without need of opening and consequent air exposure. I have seen much more clarity of wine flavors, complexity of berry flavors are more fully retained.



Bottom line is we are winning multiple awards every year for the clarity and complexity of our wine. (read more on the website)

Sandy Mubarak Co-winemaker, Vineyard & Winery Manager for Old Coach Vineyards Poway, California

...from French Chateau's to California Award Winning Wineries – Flextank is making an impact on all six winemaking continents!

#### Wine Flavor Control

All wine makers strive to produce a consistent, high quality product. The consistency of performance between Flextank vessels, and the availability of a wide range of oak adjuncts in the form of staves, chips, spirals, blocks etc., allow a winemaker a veritable smorgasbord of opportunity to experiment with flavor in a reproducible environment.

#### What Does This All Mean To You?

- ✓ Space Efficiency: 2 STACKER Tanks replace 10 barrels
- ✓ Hygienic, easy to clean and Ullage Free
- ✓ Long life and Economical: save up to 90% on your wine-aging costs
- ✓ Oxygen permeates through the tank walls to simulate barrel aging
- ✓ No routine topping-labor cost saving
- ✓ Retain flavor volatiles for more complex flavor profiles
- ✓ Polyethylene material meets FDA and European Food Safety Standards
- ✓ Compatible with all available oak alternatives from specialist suppliers
- ✓ Versatile may serve as primary or secondary fermentation vessels
- ✓ Heavy duty (thicker wall) versions available for lower oxygen permeation rate (think neutral barrel performance)

Award winning wines are now regularly being made in FLEXTANKS at thousands of wineries



Proudly designed and manufactured in the USA. Tanks are manufactured in Vancouver WA 98682





