

# WineEasy™ Winemaking System

## Product Review – Part I

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This is the first of two product reviews of the WineEasy™ winemaking system developed by [Blichman Engineering](#). Part I is a preliminary review of the equipment and intended applications and operation while Part II will evaluate the actual operation with grapes.

As of the time of writing, certain aspects of the system and availability had not been finalized and are therefore subject to change.

### Overview

The WineEasy system is an all-inclusive fermentor/press for making wine from grapes. It greatly simplifies pressing and racking operations without the mess of conventional equipment.

Fermentation and pressing is all done in the *same* vessel without the need to transfer grape solids to a separate press, and the wine is “racked” to a carboy under the action of a vacuum pump. The vacuum action draws down a piston assembly that acts as the pressing mechanism. Wine is transferred to a carboy in a fully closed system to protect the wine from microbial contamination.

The tank is designed with a false bottom and screen to allow wine to be racked free of seeds and other grape particles.

My overall impression of the WineEasy system is that it is a must-have for any serious winemaker looking to make wine from grapes. If you have been shying away from grape winemaking, this system makes the whole process simple, clean and fun—lots of fun.

The WineEasy system is also a great value-add product for brew-on-premise operators looking to provide grape winemaking services.

## Equipment

The system comes fully equipped with all the components shown in the figure, except the carboy; all you need to supply are grapes.



The complete system is sold in three (3) separately orderable sets of components:

1. A stainless steel “pot” available in volumes of 20, 30 or 55 gallons (76, 114 or 209 liters) equipped with a pressure plate and screen, tank lid, tank base, racking fittings ( $\frac{7}{8}$ "), ball valve and tri-clover clamps, a  $\frac{1}{2}$ " barb fitting, and a special adaptor (used with a ratchet tool) to tighten the racking fittings onto the tank.



Pressure plate



Cutaway view of screen on pressure plate



Racking fittings & valve



2. A patent-pending piston assembly that acts as the pressing mechanism. The piston kit includes a seal and piston bung to enable a perfect vacuum during pressing/racking operation, and 4 guide bars. The guide bars help the piston move down during the vacuum racking operation without tilting. Tanks are designed with the same aspect ratio, which means they have different diameters and, therefore, one piston kit is required for each tank volume. One piston kit can be used in multiple tanks of the same volume.



3. A vacuum press kit comprising of a 1/6-hp vacuum pump, plastic tubing for wine transfer to carboy, stainless steel racking tube (J tube), check valve and tube, rubber bung for piston assembly, 1/2" barb fitting, and a 2-hole bung. The vacuum press kit is used for all tank volumes.

The pump can also be used for degassing wine prior to bottling and is orderable as a separate kit (same as press kit but without the J-tube, rubber bung for piston assembly, and 1/2" barb fitting).



A leg extension kit is also available for the 20- and 30-gallon models.

## Uses

The main intended use of the WineEasy system is in making red wine from grapes.

The system could conceivably be used to press *crushed* white/red grapes for making white wine to allow for juice transfer under vacuum to a carboy to protect the juice from the effects of oxidation.

The tank can also be used as a normal fermentation tank for either red or white winemaking.

## Operation

Making wine with the WineEasy system is very simple.

In the following, it is assumed that the system and all parts have been thoroughly cleaned, rinsed and sanitized as per standard procedures. I recommend a caustic solution, such as sodium percarbonate or soda ash, or StarSan for sanitizing.

The following is a summary of how to operate the WineEasy system. Please refer to the owner's manual for detailed instructions and caution notes.

1. Install the WineEasy system: Set the tank on the base, install the drain (racking) valve and fittings, and install the pressure plate and screen inside the tank. Drain the system well and close the racking valve.
2. Either crush grapes using a crusher and transfer the pomace and juice to the fermentation tank, or transfer a portion of whole-grape clusters to the tank and crush the grapes using, for example, a potato masher and then continuing adding and mashing grapes. *Never* fill the tank more than three-quarters; this is to allow for the pomace to rise during fermentation. Remove the stems, inoculate the must, place the lid on the tank, and proceed with fermentation as usual making sure to punch down the pomace daily.
3. When fermentation is complete, install the ½" barb fitting on the drain valve. Insert the stainless steel racking tube (J tube) and short tube through the 2-hole bung, and insert in your glass carboy. Attach a tube from the barb fitting to the racking tube. Place the carboy at a lower point than the tank. Open the racking valve to let the wine flow from the tank to the carboy. Close the valve when the wine has reached the halfway point in the tank.
4. Remove the lid. Insert the piston assembly in the tank and push down until the top of the assembly is below the top of the tank. (*Do not* insert the bung hole yet.) You may need to spray a sulfite solution along the tank wall to ease the piston assembly down. Move and secure the 4 piston guide bars so that they rest against the tank wall. Push the piston assembly down until it rests on the surface of the pomace. Insert the solid bung into the piston assembly.
5. Attach a tube from the vacuum pump inlet to the check valve and insert it on the short tube in the 2-hole bung on the carboy. Place the carboy in a plastic pail for protection against accidents during the vacuum racking operation. Adjust the short tube in the 2-hole to the desired wine height in the carboy.

Note that the check valve is not designed or intended to perform an auto shut-off but rather to protect against accidental overfill.

6. Turn the pump on to start the vacuum racking operation. Wine will flow from the tank to the carboy under the action of a vacuum (the piston assembly will press down automatically).

Stop the pump when the wine has reached the desired height in the carboy, and close the drain valve. Remove the 2-hole bung from the carboy and replace with a fermentation lock and set aside in your cellar.

Note that atmospheric pressure is approximately 14.7 PSI or 1 bar. The pressing system can never exceed that so you can never press into a “hard press” condition—it automatically limits that where a mechanical press won't.

7. Remove the solid bung from the piston assembly, slide the guide bars back towards the center of the piston, and pull the piston up and out of the tank. You may need to spray the tank wall with a sulfite solution if removal of the piston is tedious.
8. Remove the pomace from the tank and rinse and sanitize the whole system and all parts for next use.

### Pricing

The manufacturer's suggested retail prices in US\$ are listed below. Note that the same vacuum press and degas kits can be used on the different volume fermentors. The leg extension kit is only available on the 20- and 30-gallon models.

	Gallons		
	20	30	55
<b>Fermentor kit</b>	549.99	649.99	849.99
<b>Piston kit</b>	209.99	234.99	264.99
<b>Vacuum press kit</b>	224.99		
<b>Vacuum degas kit</b>	199.99		
<b>Leg extension kit (20/30 only)</b>	99.99		N/A