

Meet Harvey!

...Taking a hint from those who love their Harvest Right[®] Freeze Dryer so much they have actually given it a name, we decided to name our filter!

Why "Harvey"?

Because "Harvest Right®" and "Harvey" just seem to go together, and they do!

Harvey helps your Harvest Right[®] system work better by helping you clean your vacuum pump's oil.

Harvey is easy to use. Just pour the used oil in the top and clean oil appears in the bottom.

What's in the Box:

1) Used Oil Container with Oil Transfer Assembly attached.

- 2) Oil Filter
- 3) Clean Oil Container





Assembling the Filter Unit:

1) Simply twist the Oil Filter onto the Oil Transfer Assembly until it stops. (*Don't tighten it, as that will make it harder to remove and change the filter in the future.*)

2) With the filter now attached, lower the Used-Oil Container onto the Clean Oil Container and secure the lid. The system is now ready for use.

First Use:

Using Harvey is simple! He works by simply passing the used oil into the filter's center, through the filtration material, then overflowing the filtered oil into the lower container.

The first oil you add to the system will fill the filter, only overflowing into the container once the filter is completely filled. The filter holds about 1 quart of oil.

Note: The Vacuum Pump contains approximately 3 cups of oil, so on first use it will take more than the oil drained from the vacuum pump before oil appears in the Clean Oil Container. Once the filter is full, the equivalent amount of oil entered into the Used-Oil Container will pass through into the Clean Oil Container.

For Best Results:

1) Drain the oil from the vacuum pump after each freeze drying cycle. It is best to do this as soon as possible after the cycle completes, while the oil is still warm and the particles are still suspended in the oil.

DO NOT FORGET to refill your vacuum pump with oil before beginning another freeze drying cycle.

 It's best to not fill the Clean Oil Container above the level of the <u>bottom</u> of the oil filter, so as to reduce dripping oil when you remove the lower container to pour out the filtered oil.

> Before removing the clean oil, tip the entire unit slightly to drain some oil off the top of the oil filter. Wait a few seconds to let the oil drip into the container, then unscrew the lid from the Clean Oil Container and remove the upper assembly, including the filter. Holding the unit level, carefully set it aside momentarily, preferably in a container that will support it and protect it from tipping or spilling. A #10 can works well for this purpose. Place a paper towel in the bottom of the can to absorb any drips.



Pour the oil from the Clean Oil Container and then reassemble the unit.

Dealing with Water in the Vacuum Pump Oil:

Water is your vacuum pump's enemy. It causes corrosion and reduces the efficiency of your vacuum pump. Each time you drain the oil after a freeze dryer cycle, water and sediments will have accumulated in the oil.

Using Harvey regularly makes it easy to eliminate the water in your system.

Note: Water is heavier than oil, so the unit's gravity-flow design helps keep the water from entering the Clean Oil Container. However, if large amounts of water accumulate in the filter, the efficiency of the filter will be reduced and some water may overflow into the clean oil. It's best to eliminate as much water from the oil as possible, before pouring the used oil into the system for filtering.



Three Ways to Eliminate Water from the Oil:

Good: Drain a couple of tablespoons of oil/water from your vacuum pump and discard it, before draining the remainder of the oil.

Better: In addition to the above, drain the oil into a glass jar and set it aside. You will see the remaining water accumulate in the bottom of the jar. When pouring this oil into Harvey for filtering, avoid pouring in any of the water.

Best: Soon after your freeze dryer cycle completes, drain the warm oil into a glass jar. Cap it and place it aside until it cools allowing water and heavier sediment to settle, then place the jar in your freezer. (The water will freeze, but the oil will still flow through your filter – although it will flow more slowly.)

Pour the cold oil into your filter system for filtering. The water (now ice) and the heavier sediment will remain in the jar. Simply wash it out with soap and hot water and dry the bottle for its next use.

We highly recommend this method. It is very effective at removing the water from your vacuum pump oil which benefits and protects your vacuum pump.



Harvey is:

- Easy! He's simple to use and works independently. No connections to add or change on your Harvest Right[®] system.
- **Thrifty!** By saving you money, he pays for himself in oil cost savings.
- **Helpful!** By reducing vacuum pump cleaning and maintenance. (Removing sediment and water from your pump is just smart.)
- "Green!" By letting you reuse your oil instead of discarding it, Harvey helps you help our environment.

We think you'll like Harvey, and before long, you'll be calling him by that name too!

Frequently Asked Questions & Some Helpful Tips:

1) How long will my filter last?

In our experience, a filter will last about 3 months, depending on what foods you process and how much you use your freeze dryer.



2) How will I know when it needs replacing?

You can tell when the filter needs to be replaced when the flow begins to slow down significantly. This should be a gradual process and not a sudden one, and should be noticeable.

3) Will any oil filter work?

No! Most automotive oil filters have an "Anti Drain Back Valve" (ADBV). A filter with an ADBV will not work with Harvey.

4) Where can I buy replacement filters?

We can provide them, but because of the cost of shipping, it's hard for us to offer you the best value, especially if you need only 1 or 2. The whole idea behind creating Harvey was to save you money, and if we can do that by sending you elsewhere for supplies, we're happy to do that.

We've done a lot or research to find the best filter and the best deal for our Harvey customers. The best replacement filter is a Wix 51525, which does <u>not</u> have an ADBV and can be bought online or from many auto parts stores. It is also re-branded under different numbers, such as a CarQuest 85525 or Napa 1525.

Auto Parts stores such as Advance Auto Parts, O'Reily & NAPA sell them. However, it's a good idea to call ahead, as they may not stock it, but can order it from their warehouse and can usually get it within a day.

They are also available online. For example, search for "Wix 51525" on Amazon and it will usually show several options.

5) Help! Harvey stopped working suddenly! What's wrong?

Harvey depends on air being able to get in and out of the containers to allow for the flow of the oil. There are two vent holes in Harvey – one in each cap. If they get plugged and air can't move, Harvey will stop working.

Don't panic! The fix is simple. Simply loosen the bottom container lid a little so the air can escape. You should notice the oil begin to flow again.

Another simple fix is to slip a coin or other flat object between the lid and the bottom edge of the top container, creating a slight gap, which will help the air to escape. Also, check the vent hole in each lid to make sure they are clear.

Thanks for welcoming Harvey into your home! We hope you'll find him to be a helpful addition to your Harvest Right Freeze Dryer system!