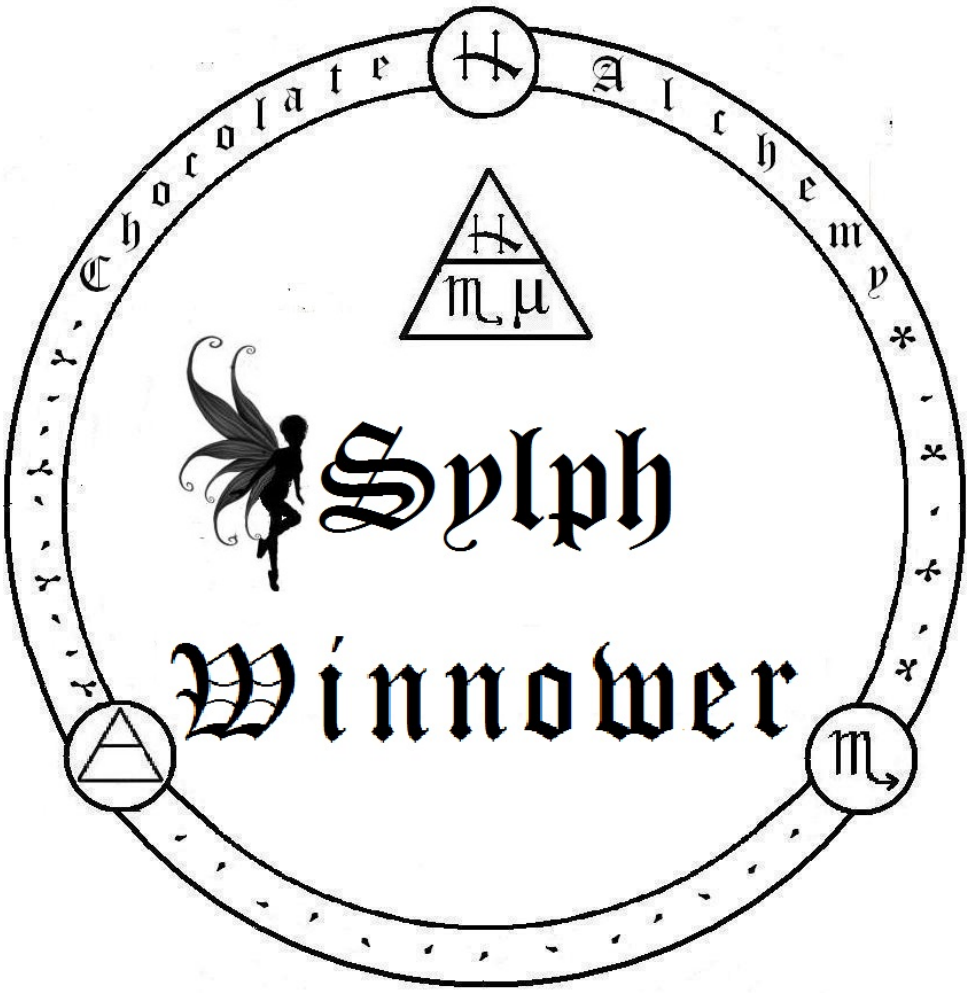
The Sylph Winnower



Warranty Information
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Limited Warranty

The Sylph Winnower - BETA

12 month limited warranty: Chocolate Alchemy warrants to the owner of this product that it is free from defects in material and workmanship for a period of 12 months from the date of purchase.

The manufacturer's obligation will be limited to repairing or replacing (at manufacturer's discretion) F.O.B. (address city state zip) any part(s) of the product which is/are defective. The Sylph Winnower is non-returnable and non-refundable once purchased.

Such warranty will not apply to defects or damage resulting from tampering, modifying, cosmetic damage, acts of nature, accidental breakage, abuse, negligence, neglect, and/or misuse.

The Sylph Winnower is designed and manufactured to function properly. Chocolate Alchemy strongly recommends avoiding any modifications to the product. Modifications will void the 12-month limited warranty and trolls will be sent after you.

If you must return the product or parts of the product for reasons of malfunction within the 12-month warranty period, the following action and steps are required:

1. Contact Chocolate Alchemy to determine repair or part replacement needs and to obtain a return merchandise authorization (RMA). Then ship prepaid (USA residents only) to Chocolate Alchemy by the most convenient method with the RMA clearly noted on the outside of the box.

2. The winnower must be packaged securely to protect from damage or breakage in shipment. Chocolate Alchemy accepts no responsibility for damages occurring in the shipping process. We highly recommend insuring the shipment in case of damage.

Even if not required, the rights in this warranty are granted to you.

Chocolate Alchemy will not be held liable for any special, incidental, or consequential damage, resulting from possession, use or loss of this product either directly or indirectly.

Assembly

The Sylph Winnower consists of two main components; the Support Platform, and a 5-gallon Husk Bucket.

In addition to the items listed above, a cocoa bean cracker (Champion Juicer or Crankandstein Cocoa Mill are the simplest and least expensive) and Shop-vac Hang-Up Mini (5.75 amp with 1.25” hose) * or equivalent vacuum, and a nib catchment tray or bowl are required to operate the Sylph Winnower.

*This is the model of vacuum used to develop the Sylph Winnower. Other lesser powered brands may work as well. More powerful vacuums are not recommended as you may not be able to reduce the vacuum seal enough to operate the winnower efficiently.



Figure 1: Support Platform



Figure 2: Husk Bucket



Figure 3: Nib Outlet



Figure 4: Feed Tube Assembly

Remove the Sylph Winnower from the shipping box. Remove the Feed Tube from the bucket and replace Support Platform. Insert the Feed Tube as shown in Figure 4 (above), and using a Philips screwdriver, secure the tube into place with the provided screw.

Insert the end of the Shop-Vac hose in the Vacuum Attachment Coupling on the top of the Support Platform.



Figure 6: Vacuum Attachment Coupling



Figure 7: Winnower, Vacuum and Nib Catchment Tray Set-Up

Congratulations – Your Sylph winnower is now assembled and ready to be tuned.

Tuning the Sylph Winnower

The Sylph Winnower is designed to winnow roasted and cracked cocoa beans. It has two adjustment valves to allow you to 'tune' it to your particular cocoa bean and vacuum. All cocoa beans are not alike. You know this as they all have different flavors. Likewise, they require slightly different settings on the Sylph and these settings MAY CHANGE over time.* Also, the Sylph, regardless of its magical name, is not magic. The quality of the nibs you get out is only going to be as good as the quality of beans you put in. This means if you have flat, under-fermented and/or mucilage covered beans then you will most likely get flats and other pieces of 'non-nib' in with your nibs. This is a consequence of what you put in, not a matter of the Sylph not functioning properly.**

First off, no winnower is perfect. A small amount of nib in your husk (as powder) and/or a small amount of husk in your nibs can be expected. Industry standard is less than 1.5% husk in nib (that would be nearly 2.5 oz of husk in 10 lb) If you were to weigh it out and look at it, it looks like a LOT of husk, so when you see a little, don't panic. On average, with well prepared, properly roasted beans, you can expect less than 0.5% husk in your nibs and virtually no nib in your husk bucket.

Tuning the Sylph occurs in two steps: setting the Vacuum Adjustment Valve and then setting the Discriminator Valve. Think of them as coarse and fine adjustments respectively. Please do not change both valves at one time as you can then not tell which valve affected your results.

As a starting point, open the Discriminator Valve all the way and open the Vacuum Adjustment Valve ½ way.

Test with fully cooled roasted beans.

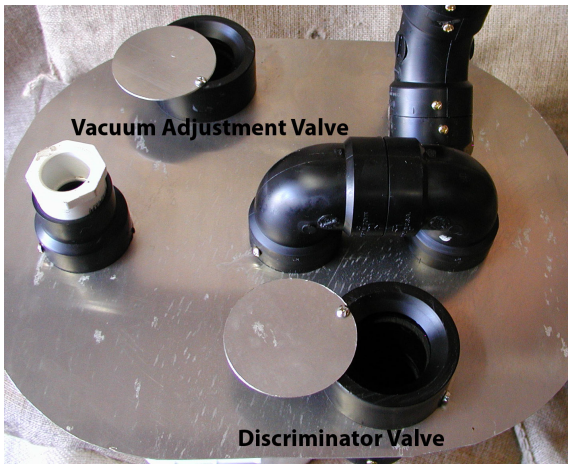


Figure 7: Valves

Setting the Vacuum Adjustment Valve

Process 10 oz of roasted beans (see operations manual for step by step instructions) and calculate your recovery: Weight of nibs / Weight of beans (10 oz).

- 0.80 or 80% is great. If the nibs look good and there is virtually no nib in the husk, you are done. Go forth and winnow.
- 82% is either perfect or you have husk in the nibs. If it is the later, increase the vacuum a little (close the valve) and test again with another 10 oz.
- Less than 80% - generally there is nib in the husk waste. Decrease the vacuum a little.

Continue adjusting the Vacuum Adjustment Valve and testing until you hit a maximum recovery of nibs with minimal husk content. At this point there will still be some nibs in your husk waste or husk in your nibs.

Note: 'Flats' do not count as husk if you see them in your nibs. You can't 'adjust' these out – they have to be screened out.

Setting the Discriminator Valve

At this point, you have adjusted your Vacuum Adjustment Valve to the point where there is either husk in your nibs or nibs in your husk. Adjust the Discriminator Valve depending which is the case.

Husk in your nibs – Close the Discriminator Valve 1/4-1/2
Nibs in your husk – Open the Discriminator Valve 1/4-1/2

Process another 10 oz of roasted beans and calculate your recovery: Weight of nibs / Weight of beans (10 oz). Compare this recovery to your last recovery.

If there was husk previously in your nibs, you want your recovery to go down as that shows more husk is being removed. If there is still too much husk in your nibs, close the Discriminator Valve another 1/4 - 1/2 and test again with another 10 oz of roasted beans.

If there was nib previously in your husk, you want your recovery to go up, giving you more nibs. If there is still too much nib in your husk, open Discriminator Valve another 1/4-1/2 and test again with another 10 oz of roasted beans.

Through all of this, keep in mind to LOOK at the nibs and husk and if they look good, you are done.

Troubleshooting tuning:

If you are at 80% recovery or above, stop adjusting and proceed to winnowing.

If you are way above 80 % recovery and a lot of husk is in the nibs, adjust your Vacuum Adjustment Valve closed (although this should not be the case as you should have closed it enough to have no husk in your nibs).

If you are way below 80% recovery, examine your husk waste. If there is nib present, there are three possible reasons:

1) You cracked while the beans were warm and they powdered too much – re-test and calibrate with cold roasted beans.
2) You need to open the Discriminator Valve more.
3) If the Discriminator Valve is already fully open, you need to close it to 1/3 open, open your Vacuum Adjustment Valve a little, and test again.

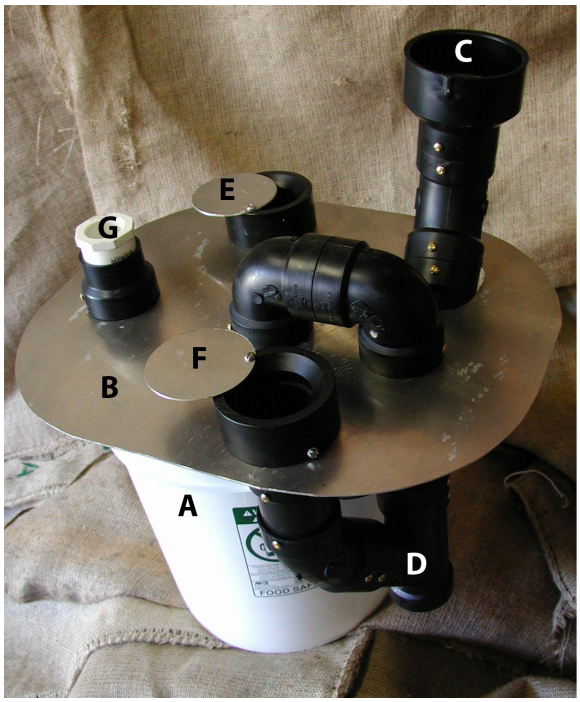
And of course, at any point you are happy with the distribution, stop. I like to process 10 oz each time because the math is easy, the amount is representative, and you can see very quickly whether the tuning change you made had a positive or negative effect.

After a while, you should be able to 'eyeball' your tuning without all of the math, but it's rather helpful at the beginning while you are learning.

* Over time, the dust filter on your vacuum will accumulate dust and the vacuum pressure will drop. As this happens you will start to get husk in your nibs. The solution is to simply close the Vacuum Adjustment Valve a little to increase the vacuum pressure until you clean the dust filter out. Don't touch the Discriminator Valve!

** If you find you are using a bean with a lot of flats, (and there are some great tasting beans out there with flats so I do understand) you can screen your final nibs to remove these as they are generally much larger than the nibs. A ¼" hardware screen tacked onto a frame works very well for this.

Operations Manual

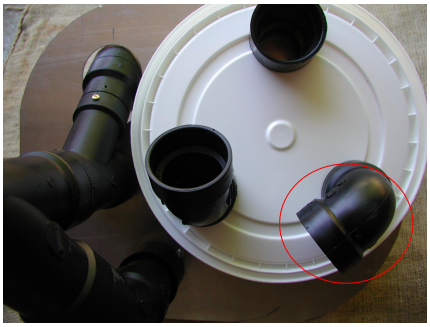


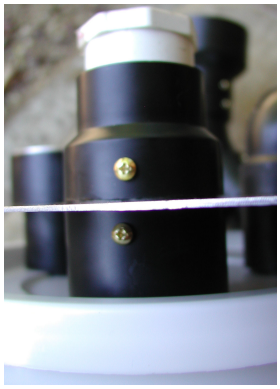
A. Husk Bucket
B. Support Platform
C. Feed Tube
D. Nib Outlet
E. Vacuum Adjustment Valve
F. Discriminator Valve
G. Vacuum Attachment Coupling

Set up

In addition to the items listed above, a cocoa bean cracker (Champion Juicer or Crankandstein Cocoa Mill) and Shop-vac Hang-Up Mini (5.75 amp with 1.25" hose) or equivalent vacuum, and a nib catchment tray or bowl are required to operate the Sylph Winnower.

Remove the Support Platform and turn it over to ensure that the underside of the Vacuum Attachment Coupling is facing in the direction shown (Figure 8). For your convenience, there are two brass screws on the portion of the Vacuum Attachment Coupling above the Support Platform. They are facing directly towards the outside edge of the Husk Bucket (Figure 9) and will allow you to verify the alignment while assembled.





Figures 8 and 9: Vacuum Attachment Coupling Alignment

Connect the 1” Vacuum hose into the Vacuum Attachment Coupling on the top of the Support Platform (Figure 6).

Plug in the vacuum and place nib catchment tray beneath Nib Outlet (Figure 7).

Operation

Tune your Sylph for your cocoa beans if you have not yet done so, or proceed to tuning.

Place your nib catchment tray in position under the Nib Outlet.

Verify there is sufficient room in your Husk Bucket to accommodate all of the husk produced. You will produce approximately 10 lb of husk from 50 lb of beans. The Husk Bucket will hold about 10 lb of husk.

Turn on your vacuum.

Hand feed the cracked beans into the Feeder Tube at as even a rate as possible.

At this point, your Sylph should be winnowing approximately 1 lb of cocoa beans per minute.

When all the cocoa beans have been winnowed, turn off the vacuum.

Clean the exterior as needed. Please note that the label is not water or cleaner safe. Dry wipe only please. Do not use water to clean the interior of any of the tubes.