Instructions for your new AutoWinder created by Level Wind Systems LLC.

www.myautowinder.com

PATENT PENDING

LWS Flyer Information

Your LWS Flyer is a production fiber processing tool, not a toy, and should only be used for its intended purpose. Please do not allow children to use this tool unsupervised. Do not adjust the flyer while it is spinning; always let it come to a full stop before doing so.

Materials and Design

Your Flyer is made with 6061-T6 laser-cut aluminum and has stainless steel hardware and laser-etched faceplates. Other components include Acetyl, Nylon, and Polycarbonate infused with carbon fiber. These materials were specifically chosen because they do not require oiling. Nylon and Acetyl are very slippery and used for industrial bearing applications, while Polycarbonate is very stiff and not prone to warping or breaking. Please note that these materials have a texture to reduce friction and are mostly dull in appearance. Parts will become smoother as you use your flyer.

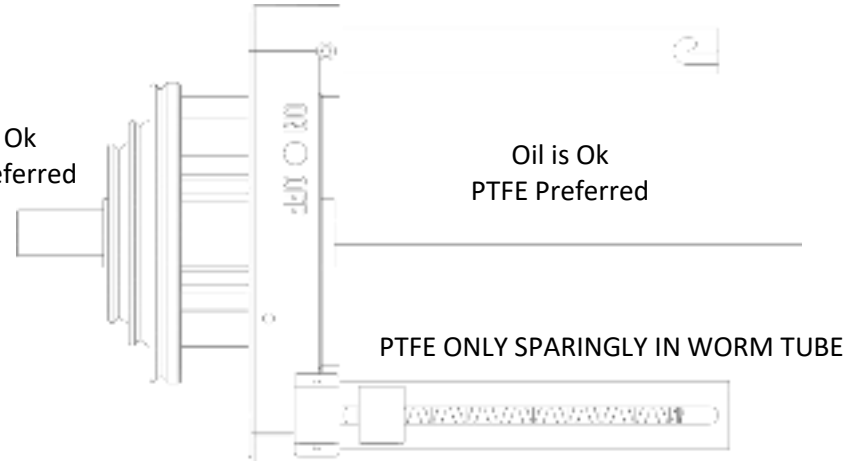
Autowinder Dynamic Weight & Vibration

The Autowinder is a statically balanced system with a dynamically weighted flyer arm and worm gear carriage/guide. When even the smallest amount of weight is moved along the worm gear tube or an orbiting axle rotates around a primary axis at high speeds, it can cause light vibration. If you notice this vibration, reduce the speed slightly and it should go away.

Lubrication (Important for Warranty)

Dupont PTFE dry lubricant is the only approved lubricant for the worm tube area. It repels dirt and dust and is superior to oil for every application. PTFE can even be used in the worm gear tube of the Autowinder in light applications. If you apply PTFE to the worm tube area, 2-3 drops every 4 weeks is sufficient. If you switch to PTFE for your spinner, make sure to clean all oil residue from the required oiling locations and re-lubricate with PTFE. This will eliminate the risk of getting oil on your fiber. A single bottle of our PTFE lubricant will last for years. If you continue using your current oil, only apply it to the orifice area and the flyer shaft. Do not apply oil to the worm tube area as it will void your warranty.

Oil is Ok
PTFE Preferred



Oil is Ok
PTFE Preferred

PTFE ONLY SPARINGLY IN WORM TUBE

Operation

Let's make it work—it's amazingly simple.

(Note: The batteries supplied with your Autowinder were used for bench testing and are not new.)

1. **Remove** your manual flyer from your spinner or wheel.
2. **Install and set up** your spinner as you normally would. There's no need for anything special like geared bobbins—just use your standard bobbins or 3D printed bobbins, such as those from BobbinExchange.com or Etsy. Guide your starting yarn through the yarn guides and into your wheel orifice as usual.
3. **Turn on** the Autowinder switch, then start your spinning wheel. And off you go—spin, spin, spin. No need to stop and change hooks or guide locations anymore.
4. **Pause for pre-drafting:** When you take a short pause to pre-draft or prep fiber, there's no need to turn the flyer off. When you start again, your flyer movement will catch up. Just keep tension on your fiber while prepping, pre-drafting, or joining fiber. This won't affect the consistency of your spin.
5. **Need more time?** If you need extra time to process fiber, simply turn the Autowinder off until you're ready to spin again.
6. **End of day:** When you're finished for the day, turn the Autowinder off and give it a little cleaning as described above.
7. **Safety tip:** Please do not attempt to stop the flyer by hand. Let it come to a complete stop for adjustments or turn the unit off.

How the Bobbin Should Fill

The unit is designed to fill the center of the bobbin first. This reduces the pressure on the end caps significantly. When producing 4-8 ounces of fiber, the pressure isn't very significant. However, when you reach the 12oz. mark, it becomes more challenging. Modern bobbins can hold as much as 21 to 32 ounces, making this design even more crucial. Here's what to expect:

1. The center should fill to within ¼ inch of each cap.
2. Felt washers are supplied to adjust and center this spacing.
3. Your wheel may require adding a felt washer to the flyer shaft in front of or behind the bobbin to ensure centering. Not every wheel is the same, so adjust accordingly (two felt washers are supplied with every flyer).
4. When the bobbin is about ¼ full, it will start filling the end cap area. This reduces the chances of overlap, which is common in other systems.
5. As the bobbin fills, it will continue to fill the ends evenly.

The Autowinder Motor

The micro motor in your flyer will require a break-in period. Initially, it may produce a slight whining sound, which will diminish over time as the gears mesh. The duration of the break-in period depends on how much you spin. While the system will never be completely silent, it will become significantly quieter over time. We've noticed on our personal units that this change occurs around 40-50 hours of spinning.

Keep It Clean!

It is important to keep your Autowinder clean. We've meticulously considered every design feature, tweaking its application over several years prior to retail launch. You will notice large windows and a wide track slot in the worm gear tube to help you access the worm gear for cleaning. All you need is a pair of tweezers or a little burst of air to keep fibers out of the works. Long staple fibers do not generally cause a mess; however, short staple fibers can and often find their way into everything. Applying PTFE available in our accessories will help keep this area clean and easy to maintain.

If you find a wad of fiber wrapped around the gear, do not panic and pry it out against the tube. Use a pair of tweezers and small scissors to cut the fiber, making it easier to remove from the area.

Over time, little fibers will inevitably collect in the system. We suggest a little cleaning after every spin. While some fibers may not require much or any cleaning, spinning light short staple fibers may need a bit more attention. This often relates to how well you maintain your twist.

For long production spins, monitor the worm tube area from time to time and give it a little cleaning during breaks. There's no need to break down your spinner—just check it out from the bottom and top while it's on the spinner.

Monthly, remove the Autowinder from the spinner and give it a thorough dusting, cleaning, and inspection of the worm tube and gear area while the unit runs forward and aft. Be sure to hold the Autowinder by the center flyer shaft during this process to keep your fingers away from the movement of the Autowinder carriage, reducing the risk of binding the unit.

Deep Cleaning Video Link https://youtu.be/WNsPMnXmhnY

Replaceable Orifices and Guides

All LWS fliers are equipped with replaceable guides. A 1/16 hex wrench is supplied with all fliers. If you do replace your guides take care as to not overtighten.

Some fliers are equipped with interchangeable orifice sizes like the MajaCraft units. Use the same wrench and care to change these parts as well.

Counterbalance note

We have included a counterbalance for your flyer. We do find in some cases it can be a benefit and eliminate wheel wobble. How to install, Remove the batter cap, slide the balance onto the battery tube. Do not slide it onto the battery sticker.

Batteries

Note: The batteries supplied with your Autowinder were used for bench testing and are not new.

To ensure optimal performance, please use high-quality batteries in your Autowinder, preferably Alkaline Duracell or Energizer. Using cheap batteries may result in shorter life spans and the risk of corrosion in the battery tube.

Battery Cap Removal Tool: For some units, a battery cap removal tool is supplied. It is a small disk with a hex protrusion that allows for the removal of flush-fitted battery caps. Simply push the hex into the cap, push, and twist to remove the cap. Before operation, please remove the tool and store it in a safe place.

Installing Batteries: All Autowinders are designed to accept batteries with the positive side going into the tube first. Ensure that all batteries are removed from the tube when replacing them. Most units require two or three batteries, while larger units like the Ashford Country Spinner may require four or five.

Battery Life: Battery life can last several months but is usually shortened if the system is not turned off during storage. It is important to turn off the system when not in use.

Warranty for the Original Owner (1-Year Period)

Just a friendly reminder: If you keep your flyer clean and free of fiber and debris, it should never need to be disassembled.

Non-Catastrophic Repairs: For any minor issues, please return the unit to us, and we will take care of it. You will only need to cover the cost of shipping. An example of a non-catastrophic repair is if the unit was dropped, became jammed, or if the tube was bent. Don't worry, just send us a picture, and we will provide instructions on how to send it to us. We'll handle the rest. You will be charged the USPS priority rate for return shipping.

Catastrophic Damage: If the unit is broken due to an accident, we will still rebuild it for the original owner. You will need to pay for the parts needed plus shipping costs. For instance, if a child sneaks into your craft room and causes damage, like loading up the worm tube with bubble gum, we can fix it. Catastrophic damage is limited to 50% of the unit's parts being still in good working order. If you have any questions, please send us a picture or short video for evaluation.

Please note that your warranty will be void if the unit has been disassembled or oiled in or around the worm gear tube area.

We made the Autowinder just for you. Now go and enjoy your new toy! 😊

Regards,

The LWS Team