

# AutoThrow for Sartorius

by Adam MacDonald

Instructions for setup and operation

For Sartorius Entris 64-1S / GD503

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Find updated documentation at [autotricker.com](http://autotricker.com)

# Parts

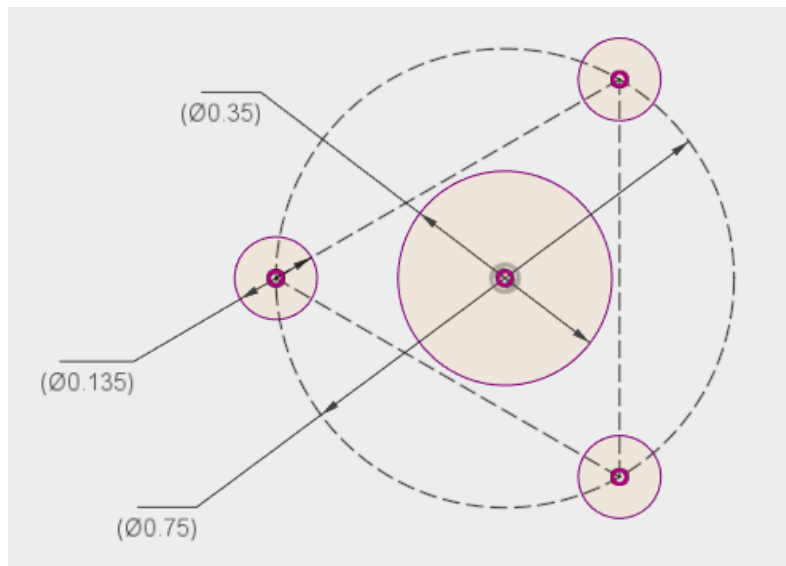
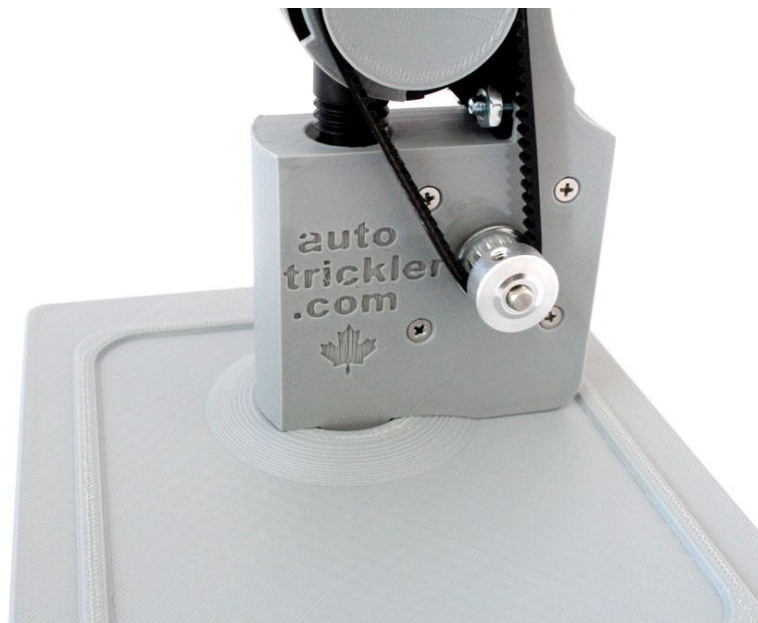


# Assembly

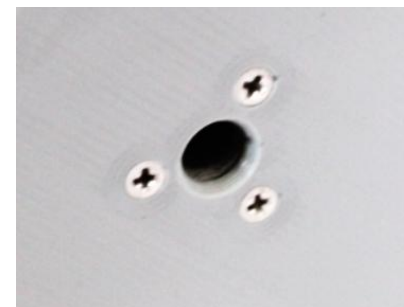
Secure the AutoThrow above your scale platform using the included screws.

You may need to construct a panel that fits your scale with the appropriate hole pattern.

Use a screwdriver. Do not overtighten! The AutoThrow may rotate when fully secured.



(dimensions in inches)

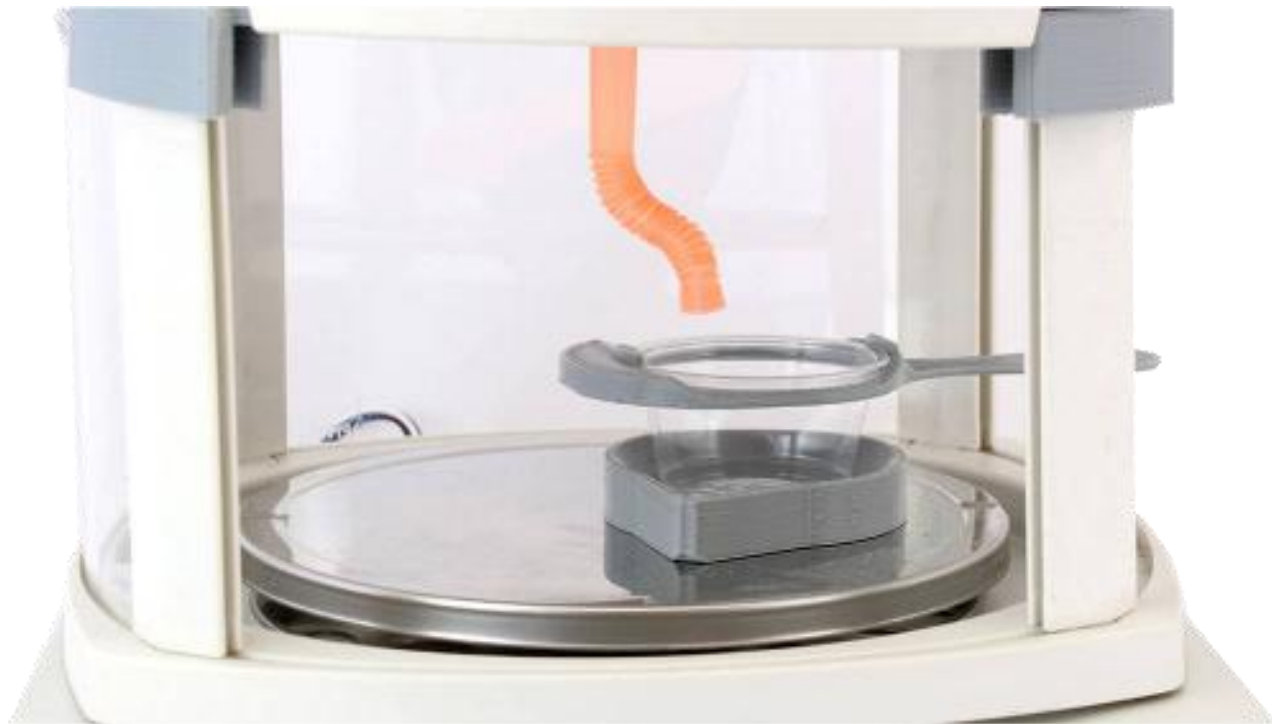


The AutoThrow will mount directly to the included panel without the base.

# Placement

Snap the handle onto one of the included powder cups.

The plastic cup will absorb the impact of falling kernels to prevent splashing. There may be some static cling at first but it will dissipate.



To prevent splashing, **apply a tight bend** in the flexible straw. This will slow down the powder and ensure it drops gently into the pan.

# Electronics



Plug the included power adapter into the electronics box, and plug the serial cable into the scale.

Refer to the AutoTrickler instructions for scale configuration.

There is no extra scale configuration needed for the AutoThrow.

# Motor Cables



# Tension Adjustment

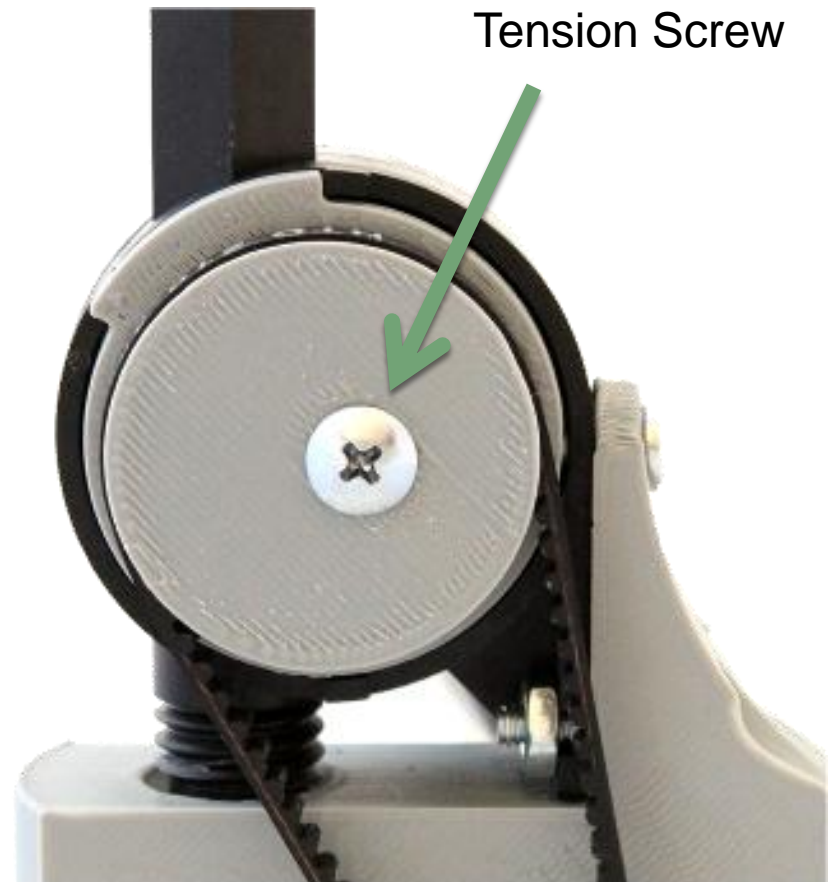
**The tension screw is very important!**

If the motor does not cycle completely, reduce friction by slightly loosening this screw.

If fine powder leaks through the powder measure, the tension screw was too loose. Take apart and clean the internal surfaces of stray powder, then readjust this screw.

The internal surfaces are lubricated with graphite. This helps ensure smooth sliding motion.

Small adjustments make a big difference!





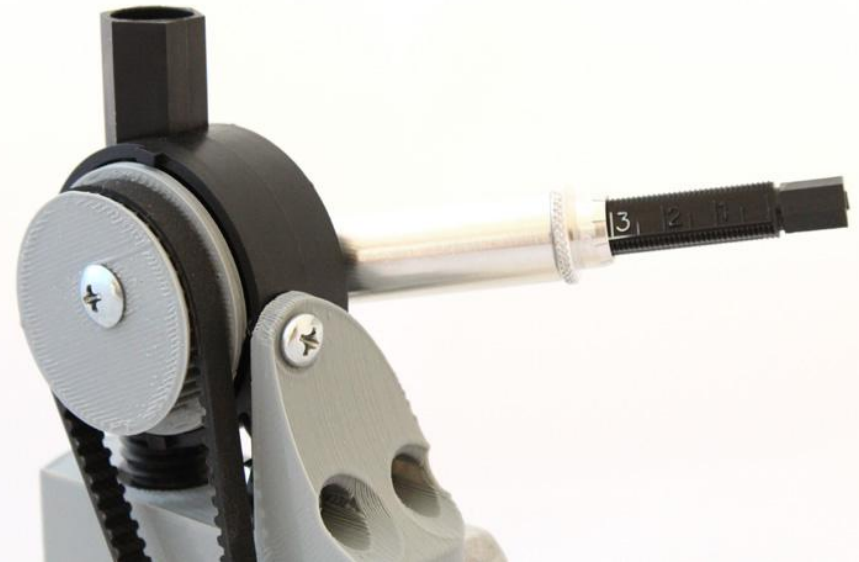
# Powder Volume

The AutoThrow should be set to drop approximately **3 grains below** your target.

Turn the bar to set the amount of powder that is dropped on each cycle.

For consistent performance, ensure the powder has completely landed in the pan **before** the AutoTrickler starts to ramp down in speed.

As you load, use trial and error to find an efficient setting that is fast and consistent.



Refer to the included Lee Powder Measure instructions for more details on the volume adjustment.



# Operation

1. Set a target weight (refer to AutoTrickler instructions).
2. Place the empty powder cup (re-zero if necessary).
3. The AutoThrow will cycle.
4. The AutoTrickler will finish the charge.

The AutoThrow can drop approximately 100 grains of powder.

For very large target weights, the AutoThrow will cycle multiple times.

Target weight	Number of cycles
Less than 100 grains	1
100 – 200 grains	2
200 – 300 grains	3
300 – 400 grains	4
More than 400 grains	5

# Clearing Powder

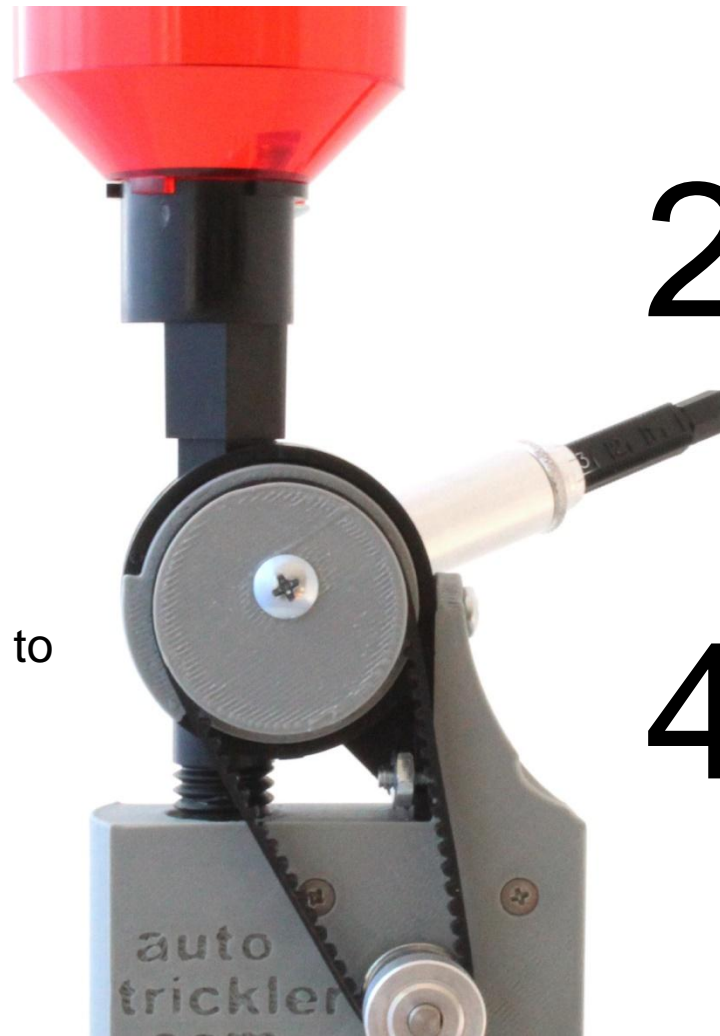
When changing powders, ensure the powder measure is completely empty.

**1** Rotate the hopper clockwise.

**2** Cycle the lever manually until no more powder falls.

**3** Tap the mount to encourage powder to fall out.

**4** Remove and empty the hopper.



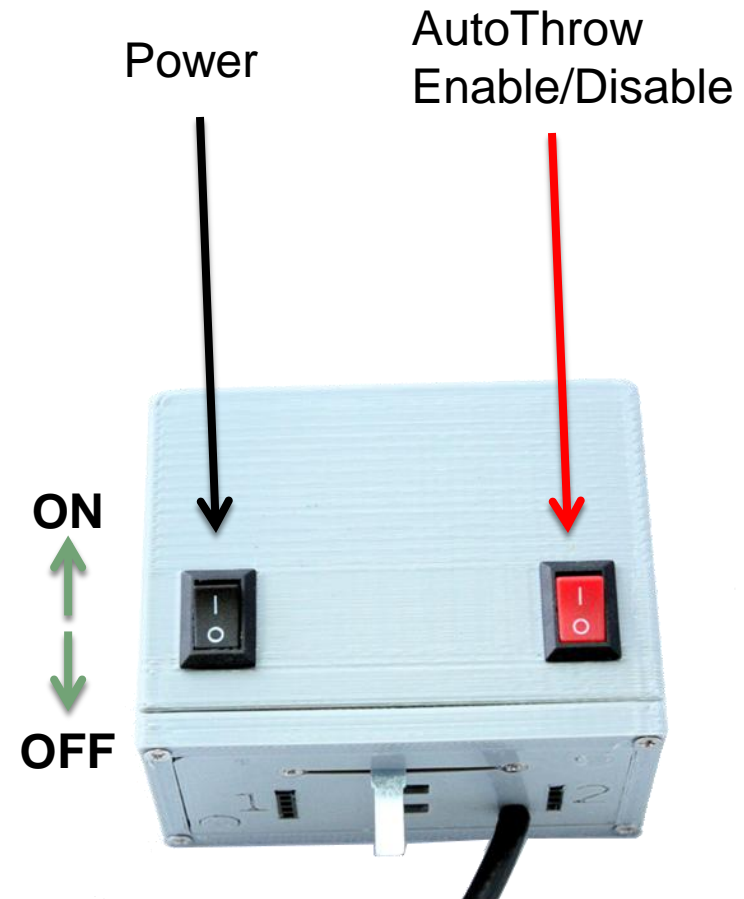
# Enable / Disable AutoThrow

To enable the AutoThrow, the **RED** switch must be **ON** when you turn the **BLACK** switch **ON**.

To use the AutoTrickler alone, without the AutoThrow, leave the **RED** switch **OFF** when you turn the **BLACK** switch **ON**.

Once the black switch has been on for 5 seconds, the setting is saved.

You can now use the red switch to set a target weight.



# Warnings / Warranty

ALWAYS VERIFY EACH CHARGE WEIGHT ON THE SCALE BEFORE LOADING POWDER INTO A CASE. This product is a tool for dispensing powder, not measuring. It does not prevent you from setting an unsafe target weight. It does not inform you that your charge is over the target or unsafe to fire. You are fully responsible for reading your scale and determining how much powder to put into your cases and into your firearm. Proper reloading practices must be used at all times. Do not use black powder or black powder substitutes. Black powder can be ignited by static discharge.

The AutoThrow is warranted to be free from any defects in material or workmanship under normal use for the period of one (1) year from the shipping date. During the warranty period, any product or parts of the product that prove to be defective due to improper material or workmanship under normal use and maintenance will be repaired or replaced at no charge to the user. This warranty is extended only to the original purchaser and is non-transferrable. This product is intended for non-commercial use. Any other use of this product will void this warranty.

If a defect appears in the product, contact Adam MacDonald (adamjmac@gmail.com) to arrange repair/replacement.