

FROM SHOOTER, FOR SHOOTERS



AGS BRASS ANNEALER V3.3 PRO

OPERATING AND MAINTENANCE MANUAL

Please Read This Manual Before You Call Asking For Technical Support

We at AGS Custom Parts are always happy to help if you have any questions, but it's nice to know you have read this first. It will help if you can use the same words to describe parts of the AGS Annealer as well.

Please only use decapped or deprimed cases in the annealer. This way, cases will rotate as they are supposed to (on many occasions, firing pin marks protrude lower than the base of the case, which can lead to them not spinning properly), plus this is the safe way to go, not to have a primed case exposed to excessive heat. When positioning and adjusting the AGS Annealer for usage with case feeder, be sure it's out of the way or high enough so it's not affected by heat generated from torch head/s!!! Use ONLY with pencil flame type of torch heads.

Minor scratches and marks occur in the fabrication and transportation process of the AGS Brass Annealer, and they are not considered a warranty item.

Upon receiving the annealer, please check the wiring and overall condition of the unit due to possible damage from shipping.

The use and operation of the annealer are subject to the Terms and Conditions available on the www.agsannealer.com website.

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Introduction

The annealer you have purchased is a light and compact annealing machine that will provide years of reliable operation if the processes and safety procedures in this manual are followed.

Annealed cases should provide you with prolonged case life and more consistent performance in the final loaded ammunition.

Please ensure you read this manual from start to finish BEFORE you use the annealer. Please pay attention to the following key points:

- The best process is to decap/deprime and then anneal your cases, then resize them as part of the reloading process. Do not resize them before annealing, as the cases can spring back in the process.
- If you wish to de-prime your case as part of your cleaning routine before annealing, use a universal decapper and not a sizing die or a neck sizing die without bushing.
- Under no circumstances should live ammunition or cases with live primers be processed through the annealer, as this could result in injury or death.
- Check that the rotating plate is in the locked/indexed position before using the annealer. Failure to do so might lead to lever handle breakage. Also, check that the height of the rotating arm is correct — it shouldn't touch the rotating plate but should be approx. 0.5 mm (0.02") below it. Touching the rotating plate can cause motor malfunction, and failure to check these before using the unit, causing the damage, will void the warranty.
- The lever handle is designed to bend or break if the case is stuck for any reason, as a safety feature.

AGS Annealer is using metal geared motors, and those can be “noisy” since the housing is acting as a resonance box. Sound is also dependent on the surface the annealer is used on, and it is not a valid warranty claim.

Any modifications to the annealer will void the warranty. If you have a question about the annealer or its operation, please do not hesitate to contact us.

AGS Custom Parts products are sold subject to the terms and conditions detailed on the website.

Refer to <https://agsannealer.com/pages/terms-and-conditions>

Safety First

Please note that, with all machinery, your safety is critical. Do not allow inexperienced users to access or operate this machine. KEEP OUT OF REACH OF CHILDREN OR PETS. Never attempt any sort of work or adjustment on the machine while the machine is energized or operating. Work should never be done on the annealer unless the power supply is turned off and the power lead is unplugged from the power supply.

Failure to do this could result in significant injury or death as a consequence.

In addition, you should never process reloaded ammunition or cases with live primers through the annealer, if the ammunition or components are ignited, there is a significant risk of injury or death as a result.

As a part of the process, heat is used, and it can be transferred to the unit, so do not touch it without wearing proper protection.

Do not ever over anneal the case, because it can lead to dangerous consequences later in the reloading process.

Use the unit in well-ventilated spaces, away from flammable surfaces or materials (like curtains for example). DO NOT OPERATE THE MACHINE with primers, powder, live ammunition, or anything flammable nearby. DO NOT LEAVE UNIT RUNNING UNATTENDED.

Disclaimer

The purchaser and users of this machine expressly acknowledge and hold harmless AGS Custom Parts, its affiliates, associates, and resellers (hereafter noted as AGS Custom Parts) from all liabilities, including loss of income, injury, harm or death for the use of the annealer and any actions that the use of the annealer may have.

AGS Custom Parts makes no claims or guarantees regarding the suitability of the processed cases for reloading or any other use, and it is the responsibility of the reloader to verify the suitability and purpose of the finished product.

All AGS Custom Parts products are subject to the terms and conditions detailed on the agsannealer.com website.

What is Supplied with the Annealer?

The standard annealer will be supplied with the following components:

1. Annealing machine with two torch holders (one torch holder is mounted upside down for transport, other one is in the box).
2. Five standard inserts set — for .223 and alike / for .308 cases and alike / for magnums and ultra magnums / for 338 Lapua Magnum or 45-70 / and one for 408 Cheytac and similar. Use without inserts for 50BMG.
3. Power charger, 12V 2A centre positive, with 3 interchangeable wall mounts that fit US, UK and EU outlets.
4. Sharpie holder, for marking brass.
5. Case feeder attachment with three inserts — for 223 family / for 308 family / for magnums — if your case feeder accepts them.

Adjusting the Time to Anneal a Case

We strongly advise using Tempilaq for setting up the proper time to anneal the case (when Tempilaq changes its color, the desired temperature is reached). Brass colour change is not a sure way to determine if the brass is annealed, under or over annealed. Under annealing has no effect on the brass, and over annealing can lead to dangerous situations.

Case heating time is adjusted over the PWM controller on the side of the annealer, with percentage 0-100 of motor power as a reference to speed of rotation. AGS Annealer is meant to be used with settings from 2.5 to 10 seconds, which correspond to percentages from 20-100% on the PWM display. Every brass annealing session flame and timing should be adjusted at that session time, due to differences in various conditions — like current weather, temperature, gas bottle pressure (unless used with regulator), case manufacturer, etc.

Torch Holder Height

The torch holder height is adjusted via one Allen head screw. Release it, adjust the height and angle of the torch (most commonly to point at the shoulder and neck joint of the case, preferably upwards), and tighten the screw. Be careful, do not adjust it while the holder is hot, because it will get hot from the torch head while being used, that's why it's important to use the Allen head key. The torch holder accepts standard 1/2" torch heads.

Case Feeder Attachment

Mount the case feeder attachment on the top surface of the unit and secure it with the screw from underneath. Before tightening the screw, test the feeder and adjust its position until the cases feed smoothly into the opening in the rotating disc. The attachment may need to be rotated slightly inward or outward to find the correct position. It does not have to be perfectly aligned with the opening, but it must not touch the rotating plate.

Calibre Conversions

Calibre conversion is done under 60 seconds — just remove existing inserts and replace them with the proper sized ones, and you are good to go — to adjust the time for the next session.

Usage Instructions

- Place the AGS Annealer at the appropriate location, away from anything flammable; do not power it yet.
- Unscrew the torch holder that is mounted upside down on the annealer body and mount it on the top side.
- Choose the proper size insert for the case and calibre you wish to anneal and place them in the rotating plate.
- Place a sample case in the heating station, place the ½" torch head into the torch holder, adjust the height and angle of the torch so it is pointed in the desired spot on the case (neck and shoulder junction), and secure it.
- Plug in the unit and press the on/off switch, the heating station motor will start running immediately.
- Turn on the rotation arm by pressing the run/stop button on the PWM controller.
- Via the up and down dial, adjust the time of the rotation of the arm (from 2.5-10 seconds).
- When finished, let the unit cool off before placing it in storage.

Menu Section of the PWM Controller Explained

Menu section:

1. Soft start time setting (how fast will the rotation arm reach its full speed): adjustments from 000-100, slow start from 0% to 100% speed time is adjustable between 0-10 seconds (for instance, the display showing 1.005 is 0.5 seconds, 1.100 is 10 seconds). The default value is 1 second. Display should read 1.010.
2. Soft stop time setting (how fast will the rotation arm stop from its full speed): adjustments from 000-100, slow stop time is adjustable between 0-10 seconds (for instance, the display showing 2.010 is 1 second, 2.050 is 5 seconds). The default value is 1 second. Display should read 2.010.
3. Rotation speed lower limit setting: 000-080, the minimum speed is adjustable between 0-80%, and is less than the maximum speed setting value, the default is 0 (the lower limit speed can be set between 0% 3.000 to 3.080, so the lower limit maximum value is 80%). The default value is 0%. Display should read 3.000.
4. Speed limit setting: 000-100, the maximum speed is adjustable between 0-100%, and is greater than the minimum speed setting value (the maximum speed setting is 100%, which corresponds to approximately 2.5 seconds, display value is 4.100). The default value is 100%. Display should read 4.100.
5. Acceleration and deceleration value settings: 001, 002, 005, 010, 015, 020, 025. Each time you press the plus and minus key, the speed changes accordingly by 1%, 2%, 5%, 10%, 15%, 20% or 25% (if the menu setting is for example, 5.002, the step of the percentage change with the plus/minus key will be 2%). The default value is 1%. Display should read 5.001.

PWM controller can be set from 0 to 100 (in percents) by pressing the up or down button. 100% is approximately 2.5 seconds per turn, and 20% is approximately 10 seconds per turn. AGS Annealer is designed to perform in that time sequence, from 2.5 to 10 seconds. Altering the default settings might interfere with the unit operation, so we advise not to change them.

What Maintenance is Required on AGS Brass Annealer?

The short answer is, very little. Other than keeping it clean, it requires no maintenance, if used in normal conditions and per this instruction manual.

Should you require replacement components, please contact us using the contact details below.

Should the electric motor stop working, wiring get disconnected, or PWM fails, please do not use the machine, remove the power lead from the wall socket and ensure the machine is not used, place an “Out of Service” tag on the machine if available.

Contact us at agsannealer.com using the contact details below.

How to Contact Us at AGS Custom Parts

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