

AGS Brass Annealer V3 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 decaped 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.

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 agscustomparts.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 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") above 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 brake 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://www.agscustomparts.com/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 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 (protective gloves).

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

Do not wear clothes with wide sleeves while operating the annealer. Rotating parts can catch them and cause injury or pinching. Do not place your fingers in the openings while unit is operating.

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

Warning:

Unit should be powered only by external power supply with rated output 12 VDC and 2A max.

Internal over current protection needs to be inside external power supply. Use of external power supply without appropriate fuse (such as car battery etc.) is not allowed.

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 user 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 agscustomparts.com website.

1. What is supplied with the Annealer?

The standard annealer will be supplied with the following components:

1. Annealing machine with single torch holder (torch holder is mounted upside down for transport).
2. Three standard inserts set – small for .223 and alike and medium for .308 cases and alike and large for 6.5PRC and alike.
3. Power adapter with interchangeable jacks, to suite US, UK and EU wall outlets. DC power adapter is 12V 2A with standard 5.5x2.1mm jack, centre positive.

2. 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 colour, the desired temperature is reached). Eye observing or 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.

3. 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 on 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.

4. Caliber conversions

Caliber 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.

5. Usage instructions.

-place the AGS Annealer at the appropriate location, away from anything flammable; do not power it yet, and secure it to the inflammable surface with the clamps and screws provided so it stays firm in place during usage (keep it level, adjusting it with screws and enlarged openings on the annealer body)

-unscrew the torch holder that is mounted upside down on the annealer body and mount it on the top side, in one of the three openings, per your preference

-choose the proper size insert for the case and caliber you wish to anneal and place them in the rotating plate

-place a sample case in the heating station, place the 1/2" torch head into the torch holder, adjust the height and angle of the torch holder 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 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.

6. 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.
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.
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%.
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%.
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%.

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 Anealer is designed to perform in that time sequence, from 2.5 to 10 seconds.

7. What maintenance is required on the 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. Any cleaning or maintenance should be done without the unit being attached to the power source, and if used prior to that, after it has cooled down. Clean with dry cloth and with any regular, non aggressive cleaning agent (if necessary).

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 agscustomparts.com using the contact details below.

8. How to contact us at AGS Custom Parts

Phone +381-62-655-600

email: office@agscustomparts.com

Postal address: AGS Custom Parts

Kneza Vase Popovića 12/25

32000 Čačak

SERBIA



DECLARATION OF CONFORMITY

to Machinery Directive 2006/42/EC and Annex II. Point A of this Directive
we AGS Custom, Kneza Vase Popovića 12/25, 32000 Čačak, Serbia hereby with full
responsibility declare that following products

AGS Annealer

Model/Type	Serial Number/ year	Electricity supply
V3	- /2024	12VDC; 2A

has been designed and produced according to the Directive **2006/42/EC, Annex I**, and
following harmonized standards:

EN ISO 12100:2010

EN 60204-1:2018

Year of affixing a CE mark: 2024

Responsible person:

Stefan Kovacević



Place and date:
Čačak, Serbia 01.08.2024.