



## **ROLLSIZER.COM AUTOMATIC DECAPPER**

### **Operating and Maintenance Manual**

**PLEASE READ THIS MANUAL BEFORE YOU USE THIS MACHINE**

**(OR ASK US FOR TECHNICAL SUPPORT.....).**

We are always happy to help if you have any questions, but it is nice to know you have read this first. Please use the same terminology used in this manual when contacting us. It will help us to understand what the issue is.

All brass processing or reloading activities come with risks including health, environmental or personal physical risks. The owners and users of this Decapper acknowledge and accept the RollSizer.com Pty Ltd terms and conditions of sale. A copy of the terms and conditions are available on the RollSizer.com website.

The Decapper is designed for the small to medium volume personal reloader. It is not designed or warranted for commercial or unattended operation. The Decapper will process cases between 380ACP up to 308Win and only requires minor changes to the speed and using the appropriate drop tube to change calibres.

The Decapper has been designed for use with the supplied FW Arms Universal Decapping Die and the small decapping pins ONLY. The Decapper will NOT work with large pins. You can damage the Decapper if you try.

Using decapping dies other than the one provided is not likely to work.

It is expected that at some stage you **WILL** break pins, and occasionally guide rods for a variety of reasons (rocks, dirt, nestled cases, Berdan primed cases etc.) and with extended use (or abuse) you will eventually wear out other parts on the Decapper. Replacement parts are available from [Rollsizer.com](http://Rollsizer.com).

The Decapper motor **WILL** get warm especially when new / running in. The motor and gearboxes will often get up to 75Deg C (167F), especially when new. This is normal. The plastic components have been designed for the motor / gearbox temperatures and will not be affected. At slower speeds the Decapper will have a high frequency whine, this is normal and does not affect the operation. Yes, it's annoying, sorry, that's the way it is.

It is expected the gearmotor will take time to bed in, this will mean the Decapper will run slightly slower initially and stall more readily in some situations. Likewise the Decapper is expected to require adjustment in the linkage between the decapper body and the case pusher. Refer to the manual for details. Please read it completely a few times before attempting any adjustment.

Please do **NOT** modify the decapper outside of the instructions included in this manual, or as authorized by us in writing. Modifying our decapper will void your warranty.

The Decapper is surprisingly complex and we ask you to discuss this with us **BEFORE** you modify it.

# Operating and Maintenance Manual

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- I have technical or a general enquiry.

Contact us at [info@rollsizer.com](mailto:info@rollsizer.com).

Please read the manual first AND try to use the same terminology when asking questions. It will help us understand the question better.

Please also give us your phone number AND Location / Country etc it helps if we need to call you....and yes we do call internationally on a regular basis.

Stay safe, keep noisy end down range.

Regards

*Kevin Whitehead*

CEO Rollsizer.com Pty Ltd

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The Decapper motor uses carbon brushes. The brushes are oversized, this gives a longer life, but means the carbon brushes can take longer to bed in (like running in a new car motor), if the stalling / hiccupping is a problem, we recommend running the decapper a minimum of 2 hours unloaded. After this you can decap normally.

In rare situations, additional running in may be required. If required, run the Decapper overnight unloaded. We recommend you put an elastic band on the back of the pegs to keep them open whilst running. This prevents wear on the pegs.

## ➤ The DC motor is hot when running.

Decapper motor will run hot, especially when new. After running in they will run cooler (usually after about 30 hours of operation) at which point they can be considered "run in". The gearmotors will initially run about 65-75 degrees Celsius (167F). They will run cooler (55Deg C -65Deg C) after running in. **This is normal. They are designed for this.**

## ➤ Where can the Decapper be placed?

The Decapper can be placed next to your press OR on the shelf under it. The Decapper is supplied with a generous length of vinyl hose and can be cut to your requirement. The straighter the hose the better.

## ➤ How do I know if the primer pin is broken?

The primer removal will be very audible with a clear pop sound. If you fail to hear this sound, the primer pin should be checked.

- ❖ We recommend processing in small batches and regularly emptying the cases into another bucket as they are deprimed.

The spare guide rod should be fitted with a decapping pin and secured with the supplied low strength locktite. The pin can unscrew without this and damage the machine.

- ❖ Loosening the locktite pin can be made easier by heating the tip of the decapper pin with a cigarette lighter for 15 seconds. This will break the chemical bond.

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## Introduction

The Decapper you have purchased will supply years of reliable operation if the processes and safety procedures in this manual are followed.

The Decapper has been designed to remove spent / fired primers from lightly soiled fired cases to allow cleaning / processing before reloading.

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

- **The Decapper is not designed for unattended operation and should be monitored at all times.**
- **Only fired cases with spent primers should be used in the Decapper.**
- **The following are considered consumables and are not covered by warranty;**
  - **Decapping pins and guide rods.**
  - **Wear on the stainless-steel base and plastic pegs / spring.**
  - **Wear in the spherical bearings, (these require grease every 5,000 cases).**
  - **Any damage to the pegs, spring, and case pusher from jammed cases.**
  - **Damage to the Decapper mount from repeated jamming or incorrectly adjusted decapping dies.**
- **Loaded ammunition, or cases with live primers should never be processed or used in the Decapper under any circumstances. SERIOUS INJURY or DEATH could result.**
- **Check the drop tube height is adjusted before using the Decapper, refer to the manual below.**
- **Fill the feed tube BEFORE starting the Decapper.**
- **The last case in the Decapper will need to be removed manually, use long nose pliers.... Not your fingers....**

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## Safety First

Please note that as with all machinery, safety is critical. Do not allow inexperienced users to operate this machine and never allow children near the Decapper (or any other machinery) whilst operating. Never attempt any sort of work or adjustment on the machine whilst the Decapper is energized or operating. Work should only be done on the Decapper with the power supply is turned off and the power lead unplugged from the power supply.

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

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

## Disclaimer

The purchaser and users of this machine expressly acknowledge and hold harmless, RollSizer.com Pty Ltd, its affiliates, associates, and resellers (hereafter noted as RollSizer.com), from all liabilities including loss of income, injury, harm or death from the use of the Decapper and any actions that the use that the Decapper may have. RollSizer.com make 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 Decappers are sold subject to the Terms and Conditions on the RollSizer.com website. Any unapproved modifications will void your warranty.**

❖ When you see this symbol, we will provide suggestions / explanations to assist in installing / setting up / operating your Decapper.

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## ➤ Why do the Decapper pins break?

The Decapper pins will break for a variety of reasons. These are usually from rocks, smaller cases (0.22 cases are common) inside your cases, Berdan primer cases and a few case manufacturers make cases with primer flash holes that are off-centre. The decapper machine is accommodating, but there are limits. If you are likely to see Berdan primer cases, running the decapper at ½ speed will usually result in the decapper stalling BEFORE it breaks the pins.

If the primers are not pushed out fully, they may tip over and jam the exit chute. Also primers that are pushed out AND are then pulled back into the primer pocket may catch on the primer discharge hole and tip over. Common causes from this are wet cleaned cases with primers in and not dried correctly (or quickly), soft pistol primers in crimped cases, 9mm major cases or lead-free primers are a known problem.

## ➤ How do I replace the guide rod?

- A. The guide rod can be replaced by removing the cap assembly on the top of the decapper body. Please pay attention to the position of the springs etc. Refer to picture above.

## ➤ My Decapper is stalling on decapping some cases.

The PWM power supply uses a “Hiccup” mode as a safety measure. Adjusting the speed controller slightly will prevent this. Most of the hiccups will occur when the gearmotor is new and not run in. This is normal. Once the gearmotor is run in it will stop.

99% of stalling on cases are due to either

- Rubbish in the cases or
- The decapper pin is set too low. This is a common issue with military crimp and sealed cases.

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- My cases fall over after decapping and jam the discharge chute.

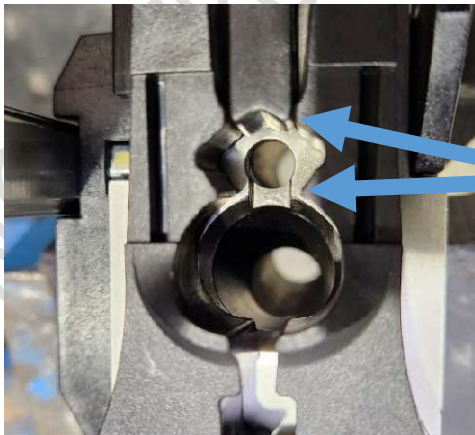
This usually means the short link between decapper housing and the case pusher needs adjustment. Refer to the linkage adjustment procedure in this manual.

- How long will the pegs last?

Very hard to say, it will depend upon the degree of soiling / dirt on the cases. The plastic material is a high end engineered material and is VERY hard wearing (it's used as a chute liner for abrasive materials). It will eventually wear out as expected, but we have supplied a spare. Replacements are available online via the RollSizer.com website. We typically see +100k soiled cases before wear is starting to show on the Pegs.

From mid 2022, a modified peg set was released. The part number is RLS-DCPegset-R and is now standard fitment to all machines. These new pegs are available via the parts section on the RollSizer.com website. (Shown above).

- ❖ What do the new pegs do? The new pegset has been designed to improve case stability. The photograph below shows the slight difference that allows the pegs to close faster.



The new pegset has slightly raised edges here and will snap onto cases faster to stabilise thinner cases such as the 223 case

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- What is supplied with the Decapper?

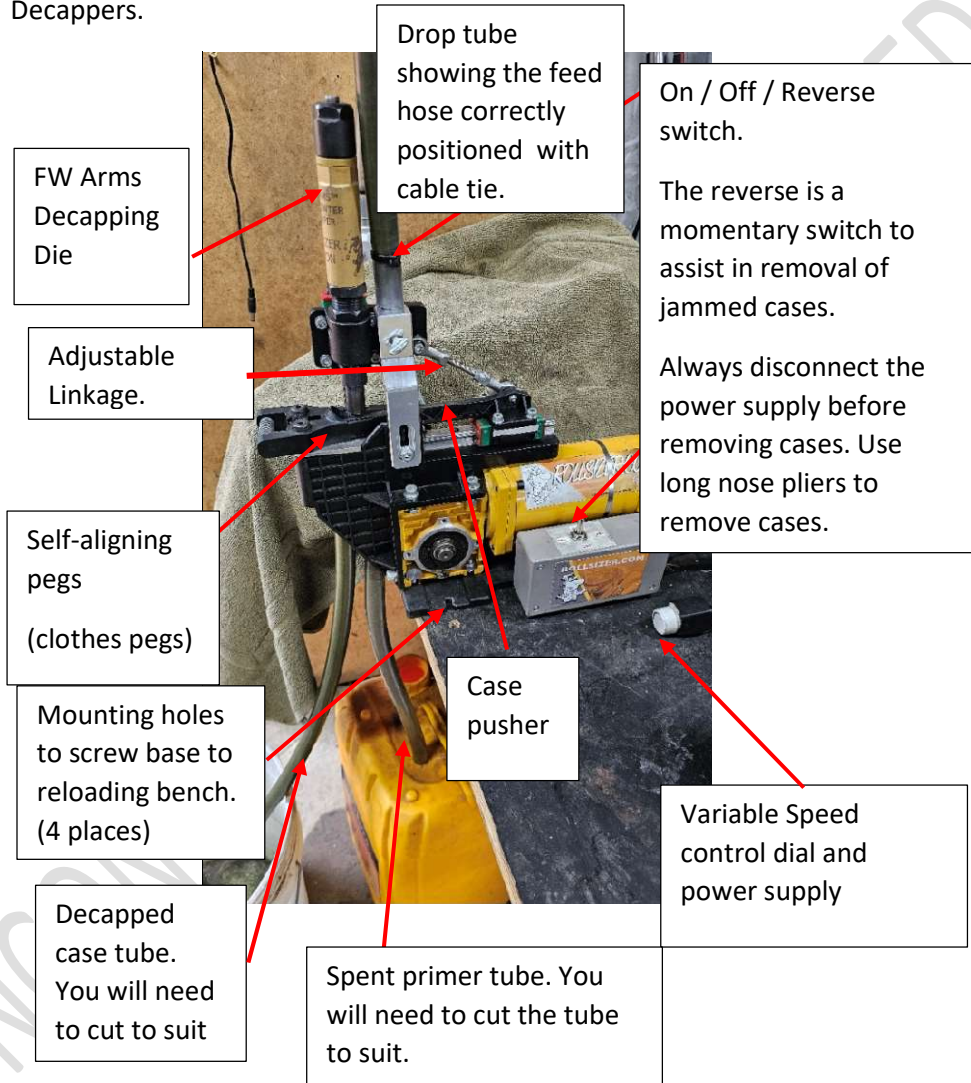
The Decapper will generally be supplied with the following components in addition to the drop tubes and any additional spares purchased with your Decapper.

1. The following is supplied with the Decapper as standard
  - a. This manual, in line with our ongoing improvements, we occasionally update manuals as we add details to the manuals. Updated manuals are available online from the RollSizer.com website.
  - b. 1 x FW Arms Decapper Assembly as standard comprising of a spare guide rod, guide rod spanners, small vial of low strength locktite. You will need to install and adjust the Decapper as detailed in this manual.
  - c. 1 set of self-aligning "pegs" and spare spring. The pegs were updated to the "Upgraded" versions about mid-2023.
  - d. 1 x 1m Length of 15mm (5/8") ID Vinyl hose with a Dillon casefeeder adaptor fitted on one end and a cable tie for the drop tube on the other end. This is called the feed hose.
  - e. 1 x 1m Length of 15mm (5/8') ID Vinyl hose to be used to control the cases feeding into a bucket (or similar) and for primer removal. The customer can cut the hose to suit.
  - f. Universal Power supply suitable for 100VAC to 277VAC supplies. The power supply brick is supplied to the market with an Australian power plug and depending on your location a plug adaptor. You may need to purchase a plug adaptor to suit your location. These are available from most electronic and travel stores.
2. You need additional parts to operate the Decapper, and these include spare decapping pins and drop tubes. The pins are a consumable and drop tubes are calibre sensitive and should be ordered with the machine at the time of purchase. You WILL need them before your machine can process cases.



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Refer to photographs below identifying the main components of the Decappers.



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- The soiled cases and primers are contained in the discharge tubes / buckets.
- The Decapper allows cases to be mixed (within limits) and minimizes the handling of soiled and contaminated cases.
- Reduced handling and processing times.

➤ Does the Decapper remove crimped / sealed primers?

Yes, the Decapper will remove the majority of crimped primers, in some situation's primers may not be fully pushed out (as they stretch). This is not a fault of the decapper. Repeated failure may indicate the decapper body needs to be reset / adjusted but this is very rare. The FW Arms decapper uses a spring to flick off the primers and primer drawback is rare. Drawback is usually associated with range find cases with corroded primers. This is not a fault of the decapper but may be improved with the modification of the wear plate detailed in this manual. The modified wear plate has been standard supply from 2023 but older machines may not have the slot in the wearplate as shown in the photographs.

Range find brass which has been exposed to rain / snow etc is often the major cause. Adjusting the decapper die up or down slightly will often help.

Cases that fall over after decapping are usually from the following reasons;

- a. Corroded primers can stretch and occasionally be pulled back into the primer pocket. If this occurs on a regular basis, you may need to replace or modify the wear plate per the photograph below. The modified wear plates have a 6mm wide x 3mm deep slot between the primer hole and the case drop hole. This modification could be done by your local machinist easily. Or you can order online from [Rollsizer.com](http://Rollsizer.com).
- b. If the cases are not being stroked fully into position by the case pusher, the ejected cases can then fall over. The stroke length can be checked and adjusted by the process in this manual.



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these become loose place a drop of locktite on the bolt threads and retighten.

## ➤ Why Decap cases prior to cleaning?

Decapping cases in a separate stage allows the primer pockets to be cleaned inside and out (including the primer pockets) and this results in several benefits.

- The decap soiled, wet clean, dry cycle time is usually much faster than dry cleaning and you get a better result with clean primer pockets.
- Reduced maintenance on reloading presses due to the primer pocket contaminant jamming up the reloading press or sensors.
- More consistent primer seating during reloading.
- Lead exposure is reduced.
- Soiled cases are kept separate from your expensive press and equipment.

## ➤ What is the health risk from Lead?

The ammunition used by the majority of manufacturers and reloaders contains lead products in the bullets and primers. Lead residue is often found any time there is handling of reloading components. Traditional dry media cleaning results in air born dust and this brings lead exposure. Wet cleaning removes a lot of this risk.

“Exposure to high levels of lead may cause **anemia, weakness, and kidney and brain damage**. Very high lead exposure can cause death. Lead can cross the placental barrier, which means pregnant women who are exposed to lead also expose their unborn child. Lead can damage a developing baby’s nervous system”. Ref [WWW.cdc.gov](http://WWW.cdc.gov) website.

The RollSizer.com Decapper offers the ability to decap lightly soiled cases and the wet cleaning process will then allow the primer pockets to be cleaned. This will result in more consistent primer seating.

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## ➤ Decapper Operation

The Decapper operation is generally as follows.

1. Remove rocks, debris, and other contaminants from the fired cases (light soiling on the cases is ok).
2. The cases are supplied from your casefeeder though the feed hose to the drop tube which in turn, allows individual cases to be fed into the case pusher.
3. The motor rotation lifts the Decapper (moving up and down vertically) while the case pusher moves horizontally backwards and forwards.
4. As the case is pushed into position it will “snap” into the decapping position. This position is self-centering.
  - ❖ It does not matter if the case is a small 380ACP or a 44mag case. The primer position is the same.
5. As the motor continues to rotate, the case pusher arm pulls back, and the decapper lowers onto the case to push out the primer. The primer will come out with an audible “pop”.
  - ❖ We recommend you process cases in small batches so if you miss identifying a broken pin you will not have to redo large volumes of cases. For this (and other reasons) we **STRONGLY** recommend you keep the decapping pin in your reloading press).
6. As the primer is being removed, another case falls in front of the case pusher.
7. As the motor continues to rotate, the decapper lifts, and the new case is pushed into position. As the new case moves into position it will push the old case out.
8. As the new case is pushed out the pegs will “snap” and the case will be thrown into the case drop tube and primers into the spent primer tube.

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- ❖ With certain case types, the processing speed will need adjustment (up or down) this is particularly important for 223 / 5.56Nato cases. The speed control is there for a reason. Don't run everything flat out.
- 9. When the case supply has run out, the last case will not be pushed out. To remove this case, park the decapper in the up position so there is sufficient clearance above the case to allow the case to be removed.
- ❖ We STRONGLY recommend you use long nose needle pliers to remove cases. DO NOT PUT YOUR FINGERS IN THE DECAPPER unit ever. Serious injury could result.
- ❖ Note, Cases do not always need to be sorted perfectly. However, some case combinations can be a problem as they can nestle within the other case and jam in the drop tube. This will result in nuisance jams and potentially damage to the decapper. (For example, a 9x19 case fits nicely inside a 40S&W).

## ➤ Decapper Machine – Where to place it on the bench?

The location of the Decapper requires some planning BEFORE you fit / cut the hoses. Please consider the position of the casefeeder and where the primer tube and decapped cases will be routed.

- ❖ Place the Decapper on your bench as a trial and look at the underside of the machine. You will see 2 tubes coming out (refer to the photograph above). These will have tubes connected to them and need to clear the edge of the bench. Think about where the tubes will go and how easy it will be to remove the primers from the tube. The spent primer hose can be sealed with tape or plugged or routed to a sealed drum (strongly recommended).
- ❖ Consider rotating your case feeder 90 degrees if it is mounted on a square tube, this may improve the tube route to the decapper.

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## ➤ Decapper FAQ's

### ➤ My cases are catching on the case flash hole.

. We are aware of some manufacturers using very small / punched holes in cases as part of their manufacture process, these cases seem to be used with Lead Free primers (usually marketed as Non-Toxic) ammunition. There is not much that can be done with these beyond running at 50% speed to minimize damage to pins.

This can be improved by lifting up the decapper body to prevent the curved section of the decapping pin getting into the flash hole. With some case brands, nothing will work.

### ➤ My cases are falling over before / after decapping

This usually means the case pusher needs adjustment. The cause is the case pusher is not pushing the new cases in far enough. Shorten the linkage per the procedure in this manual.

Also, if the cases are not getting the primers removed, they can fall over especially if the wear plate is the older design. The newer wear plates have a slot cut into the plate between the primer drop and case drop to allow stretched primers to clear the wearplate. Adjust the decapper height / pin height to suit.

### ➤ I am getting primers in my case bucket.

This is most likely due to the primers catching on the tip of the decapping pin and being pulled back into the case, adjusting the decapper height by lifting **up** the decapper pin position by ½ turn.

### ➤ My cases are not getting the primers removed.

This is most likely due to the decapper pin not going down far enough. Adjust the decapper down by ½ turn. Check the decapper does not bind on the pegs. Also check the bolts to the crank and decapper body are tight. If

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## ➤ What tools do I need?

Normal operation and adjustment are limited to the drop tube using the wing nut installed on the drop tube holder.

In the rare situation you need to adjust something, all bolts on the decapper are metric, M6 or M5, M4 metric socket head bolts and these need a #5 or #4, #3 Allen keys respectively (not supplied).

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In most applications, the hoses for the deprimed cases and spent primers do not need to be clamped to the discharge tubes. Simply push them on.

The tube is supplied coiled in the box and will often want to stay that way. Running (and holding) warm water through the tube for a few minutes will allow the tube to relax and straighten out.

- ❖ It helps if you knead the hose whilst it is hot and hang it vertically whilst it cools.

The Decapper machine has 4 places where hold down bolts or screws can be used. Refer to the photos in this manual.

In most installations, hold down screws are not be required, but if you place it in a position where it can get knocked off the bench, then screw it down to be safe.

- ❖ If the decapper falls off your bench onto concrete, you will break something (and maybe void warranty..). We have replacement parts if required.

## ➤ FW Arms Decapper installation

The FW Arms Decapping Die supplied with the Decapping machine is a proprietary product that has been customized for the RollSizer.com decapper. **It is not a standard FW Arms Decapping Die.** The installation of the Decapping Die must only be done with the decapper linkage shown in the position shown in the photo below. This ensures the decapper body will not touch / crush the pegs in its lowest position.

**Failure to follow this procedure will break or damage the pegs or the decapper body. This is NOT a warranty claim.**

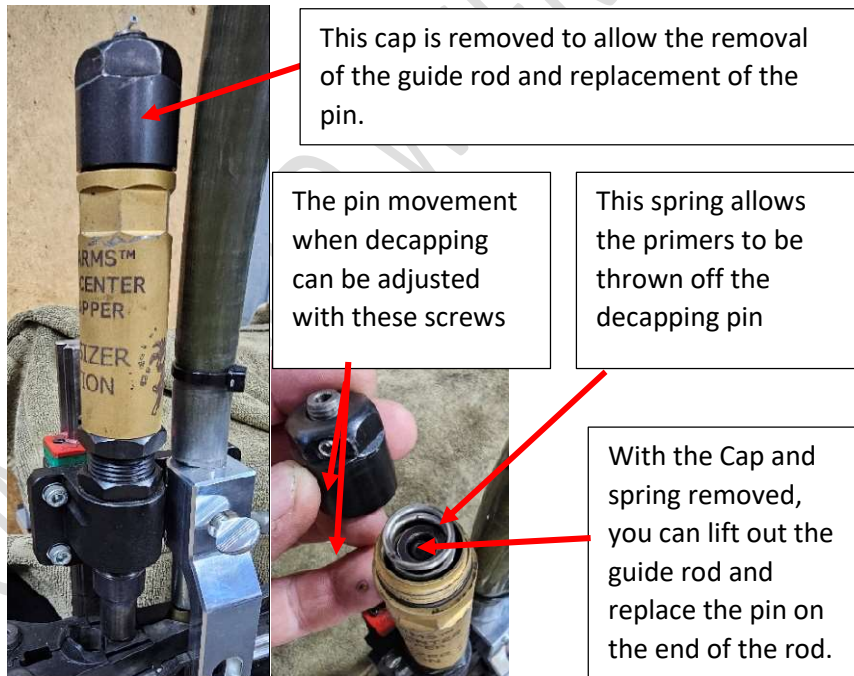
**The Decapping Die will only work with Small Pins. Using the FW Arms large pins will result in the cases jamming on the pin and being pulled up and out of the pegs.**

Please read the Instructions supplied with the FW Arms Decapper. The manual explains the safe pin removal / replacement procedure. The

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supplied decapper parts include specialized spanners to remove broken pins and a spare guide rod. Pins should be finger tight only with the locktite and left to set for a minimum of 1 hour before use.

- ❖ YOU MUST USE SUPPLIED LOW STRENGTH LOCKTITE ON THE PIN THREADS. WITHOUT LOCKTITE THEY WILL UNSCREW AND BREAK OFF IN THE GUIDE ROD OR DAMAGE THE MACHINE.
- ❖ The FW Arms Decapper die was superseded in 2022 with a newer version (Shown below with a gold colored body) that does not require separation / adjustment to change between pistol and rifle cases. The newer decapper bodies use the long version of the guide rod. (DCP-Guide-L)



- ❖ We have supplied an explanation of the older decapper setting and adjustment for completeness further in the manual.

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## ➤ Pre-Start Checks

Prior to use, the following checks should be done.

- Visual inspection, check the power lead is in good condition and is clear of any rotating equipment, check the connecting hose is straight with no kinks.
- The Decapper has the correct calibre conversion installed, the drop tube is adjusted correctly and the casefeeder, connecting hose and Decapper are clear of any cases.
- Check there are no loose bolts on the crank, vertical rod or linkage.
- Check the power supply is safe and circuit breakers are functioning correctly.
- Check the gearbox does not have any oil leaks.
- The switch turns the Decapper on / off / reverse as required.
- The drop tube and flexible hose is clear of rubbish, tumbling media or stuck cases.
- The case feeder has the correct cases for the conversion and is operating in accordance with the manufacturer's manual.
- Put a few drops of light machine oil on the spherical bearings and guide rails every 5,000 cases or so.

## ➤ Gearbox and Motor Maintenance

In normal domestic use applications, the gearbox or motor is unlikely to ever require any maintenance. The gearbox is sealed for life and in non-commercial applications is not expected to require oil changes for many years.

The Decapper motor is fitted with carbon brushes, and these are a normal wear item and are expected to require replacement at after processing around 1,000,000 cases (give or take a few.... lol), replacement brushes are available from [Rollsizer.com](http://Rollsizer.com). With normal domestic use the brushes should last for years if not decades.



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## ➤ Maintenance Requirements

The only regular maintenance required is removing excess dirt and soot and regular lubrication of the linkages and guide bearings. The linkages are spherical bearings with bronze liners. Whilst they have some self-lubrication properties, the bearings will last a lot longer with grease injected into the greasing points on the joints.

- ❖ It is the initial set / bedding in of these bearings that will cause the linkage adjustment requirement. Once this bedding in occurs, the bearings should not need adjustment for a long time. Refer to the procedure above.

The guide bearings should be wiped clean of dust and grit and occasionally a drop of engine oil placed on the rails.

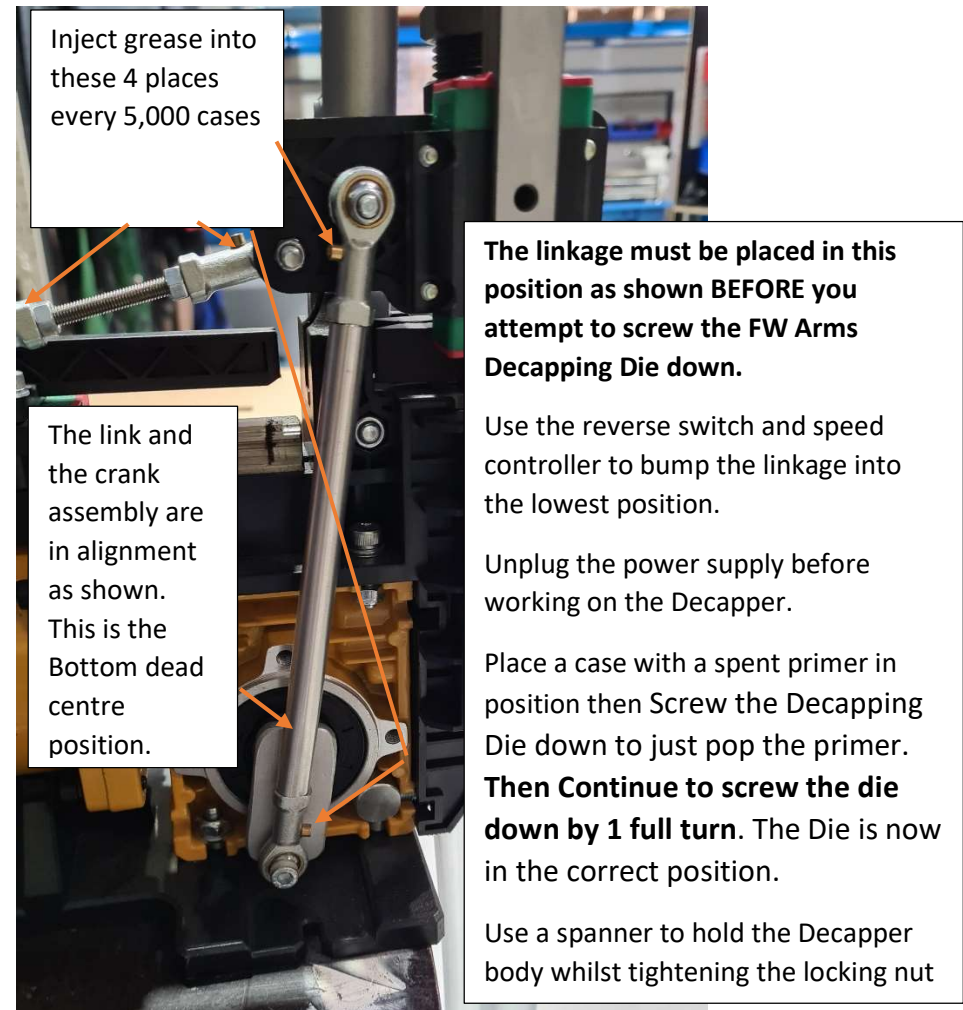
The Decapper WILL break pins and occasionally guide rods. We recommend you keep a good supply of pins on hand. (Small pins only).

With repeated use and especially with soiled cases being processed, parts will eventually wear. Replacements are available on the [rollsize.com](http://rollsize.com) website.

Should the Decapper motor trip/ stop working, turn the switch off and let the power block reset (it only takes a few seconds). If the electrical circuit breakers or safety fuses supplying the decapper trip out, 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 and contact your reseller or [Rollsize.com](http://Rollsize.com) if purchased directly.

- ❖ Never use any solvents like Brake cleaner on the Decapper as damage to the plastics or seals will occur.

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- ❖ After you install / screw in the FW Arms Decapping Die, remove the guide rod and test the operation with different cases. We recommend you get familiar with the decapper operation with the adjustment of the drop tube and how the cases move and behave

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when they move through the machine. This will save damaging the machine and save you a lot of time.

Some cases are manufactured with very small / undersized flash holes or holes that are punched and or off center. These cases may pull up on the decapping pin. Some minor adjustments are possible in raising or lowering the decapping body BUT some cases are known to be a problem such as NORMA and some "Non Toxic" cases using lead free primers. **This is not a fault of the machine.**

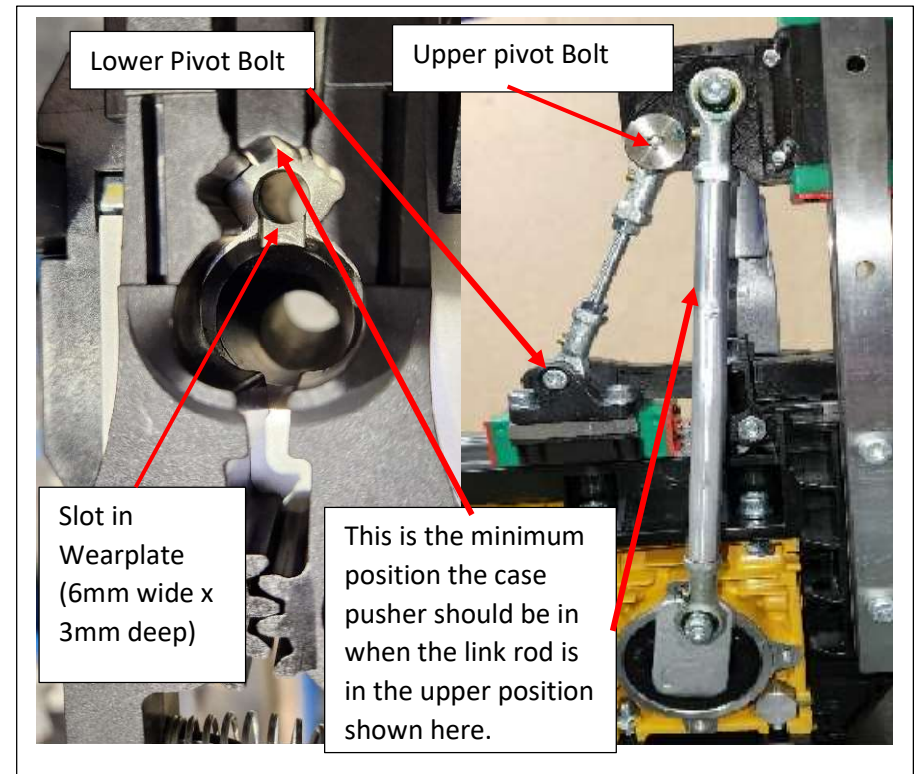


This case was decapped ok, but there are limits.

Greasing the bearings is best done with a bicycle grease pump like the one in the photo below. A single pump per grease point with generic bearing grease is sufficient. These are about \$15 - \$50 from a variety of online stores. The internet is great to find these cheaply.



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❖ Do not touch the lower pivot bolt as over tightening may damage the case pusher.

❖ Older machines may not have the updated Pegs. (part number DCP-Pegset-R)  
<https://www.rollsize.com/shop/rls-dcppegset-r-replacement-peg-set-upgraded-for-all-calibres-266#attr=56,57>



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## ➤ Adjustment of the Case Pusher / Linkage

- ❖ The case pusher is required to be checked periodically as the pivot bearings bed in. It is recommended that the case pusher be checked at 5,000 cases and then at 25,000 case intervals afterwards.

The case pusher operation / adjustment is surprisingly complex and customers often adjust it incorrectly. The following is critical to follow.

1. The case pusher must push the cases fully into position to allow the pegs to grab / stabilize the cases.
2. In situations where the cases are not stabilizing, the linkage between the decapper mounting and the case pusher may need adjustment. The threaded rod between the decapper mounting and the case pusher is a standard threaded rod. (Standard Right hand thread M5 metric rod). By loosening off the upper pivot bolt and locknut and screwing the upper bearing in or out will adjust the stroke of the case pusher.
- ❖ In 99% of occasions shortening the linkage by 1 turn of the upper bearing will ensure the cases are pushed in / out correctly.
3. The best way to interrogate / confirm the case pusher adjustment is to
  - i. Remove the decapper guide rod,
  - ii. Place a 9mm case in the drop position and cycle the decapper at 10-15% speed.
  - iii. When the case is pushed into position, the pegs will close on the case and the case should not move when the pegs clamp on the case.
  - iv. Adjust the linkage as required (Usually shortened).
4. In situations where the linkage is adjusted and the grease point is not accessible, it is recommended to OVERSTROKE the case (i.e. push the case too far) instead of under-stroking the case.

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## ➤ Power Supply and Motor

The Decapper is supplied with an AC/DC variable speed controller (Pulse Width Modulated - PWM) with built in overload protection. It's a very high-quality unit.

The motor speed is controlled using the dial controller attached to the power supply. Rotating the dial will increase or decrease the speed. The power supply operates with a soft start operation. At lower speeds the motor may exhibit a high frequency Whine.

- ❖ Aside from being annoying, the whine does not affect the operation and is normal.

The power brick can accept all AC power between 100VAC to 277VAC as well as 50 or 60hz. The power supply is fitted with an Australian plug as standard. Adaptor plugs are provided for USA or European customers. Other customers may require an adaptor plug. These are commonly sold at electronics or travel stores.

If the power supply is on and connected to the Decapper and the switch does not operate the Decapper, please check the connections and the plug is fully inserted first. If this does not work, then gently REMOVE the dial by pulling it off and reposition it. They have a range adjustment and should be able to rotate nearly 360 degrees if correctly fitted.

The power supply is designed to switch to a safety mode called "Hiccup" in the case of a jam. The hiccup mode is essentially a rapid start / stop operation. If this occurs, move the switch to the off position, clear the jam by using the reverse switch and long nose pliers. Remove all the cases in the pegs, and then restart as normal. The power supply will reset automatically.

If your decapper goes into "hiccup" mode on startup, a quick adjustment of the speed controller will stop this. The hiccups will go away once the gearmotor is bedded / run in. This is normal.

The DC motor uses carbon brushes. These brushes occasionally need bedding in to ensure a good contact between the brushes and the motor

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armature to provide the correct torque. If your Decapper trips out or stalls repeatedly it may need to be run overnight unloaded to bed in the brushes / gearbox. Refer to the FAQ below for adjustment to the decapper pin height.

- ❖ This is a result of us supplying an oversized gearbox and motor. It will last a long time, but they do occasionally need time to run in.

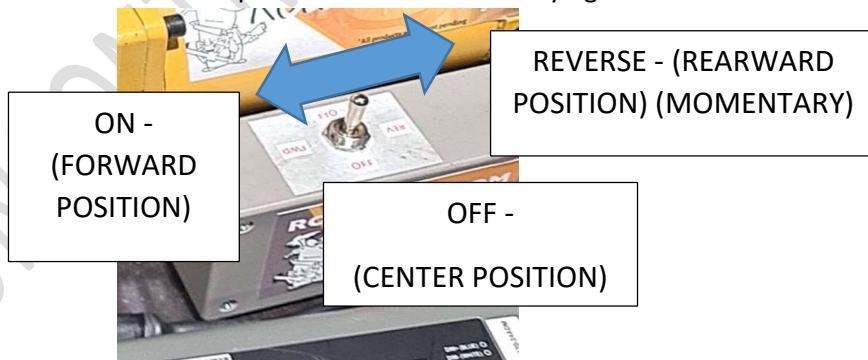
If the decapper needs running in for a long period, then put an elastic band over the peg spring to keep them separated from the case pusher and run the decapper for a few hours. The running in period may need to be up to 12 hours (very rare).

Yes, the DC motors will run warm / hot to touch, especially when new. The Decapper can get up to 75 Deg C (167F) when new. The Decapper run cooler after about 30 hours of operation. This is normal.

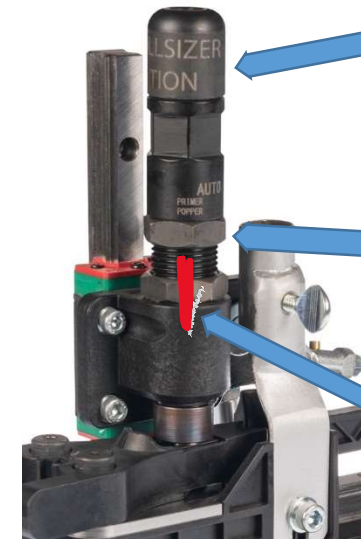
## ➤ On / Off Switch operation

In the forward position, the switch will stay on, the reverse switch is a momentary switch will return to the off position when released.

- ❖ The switch is a heavy-duty unit and should last a very long time. If you allow the switch to “arc” it will burn out the contacts and ultimately fail. Use the variable speed controller to control the motor speed rather than trying to use the switch.



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Remove this cap to remove / replace the Guide Rod / decapping pin. It can be difficult the first time.

Unscrew / separate this section to remove the shuttle from pistol to rifle.

When installed and adjusted correctly, Place a marker / paint pen here to ensure the decapper does not move with repeated use.

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- ❖ Some cases **can** nestle / fit inside others and cannot be decapped together, (sorry, we didn't design the cases so don't blame us). Examples of this include 380ACP, 9mm and 38SCwill inside 40S&W. For these combinations you **MUST** sort the cases first.

Please note;

The Older FW Arms Decapper bodies are identified by having a Black / Dark Charcoal colored body.

(The current Model has a gold colored body **and does not have** separate shuttle parts).

The following process **ONLY** applies to the older style Decapper bodies.

1. The shuttle and spring inside the Decapping Die need to be changed to a shorter shuttle to allow clearance for the taller rifle cases. (These are in a bag marked as "Rifle Spring").
  2. The Guide rods for these decapper bodies are shorter than the newer units and have the following part No. DCP-Guide. These are available via [Rollsizer.com](http://Rollsizer.com) and use the same decapper pins.
- ❖ The pistol shuttle will work for 300BLK and 223 cases but will have a shorter spring life. It will **NOT** work for 308 cases.

The shuttles can be removed by unscrewing the middle cap assembly from the threaded body. The shuttle and spring are replaced as a single unit.

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## ➤ Casefeeder and Connecting Hose



The Decapper has been supplied with an adaptor and hose to connect to the standard Dillon™ casefeeder. Refer to photo to the left. An optional adaptor hose for the Lyman case feeder is available from [Rollsizer.com](http://Rollsizer.com).

- ❖ We have been advised of variations in the position of the Dillon casefeeder collar (the part with the spring). These can occasionally be very narrow in clearance and as such the supplied

adaptor and may not always fit. The adaptor can be trimmed to fit.

The adaptor will clip into the casefeeder where the normal plastic drop tube connects the Dillon™ casefeeder to the Dillon™ reloading press. The flexible vinyl hose supplied will connect the adaptor clip to your Decapper drop tube.

When the casefeeder and Decapper locations are confirmed, check the route for the flexible hose.

- ❖ Please route the tube before cutting the tube too short....

**Install the hose end with the cable tie on it on the drop tube end!!!!**



Yes, the cable tie does actually do something....

This prevents the cases from catching on the mouth of the drop tube.

Its simple, but it works.

Insert the adaptor clip into the casefeeder and mark out where to cut the hose. Run the hose from the drop tube to the casefeeder. The hose route

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should be as vertical and as straight as possible, smooth, and clear of equipment, allow some extra length in the hose, mark the hose. Allow for some shrinkage in the hose!!!!

- ❖ Measure twice before you cut the hose.

To mount the hose onto the adaptor clip, you place the end of the hose in some hot water for approximately 2 minutes and push onto the hose tail barbs whilst still hot. Leave to cool whilst holding the hose straight.

In some situations, the hose will have kinked when it is coiled in the box. The hose can be re-shaped by plugging one end of the hose and filling the hose with hot water and kneading the hose to re-shape the hose as required. After the hose is straight and kinks removed drain the water and hang vertically to cool for 1/2hr.

When not in use, the hose should be left in a flat position to prevent kinks or bends in the hose. If this occurs repeat the process above.

- ❖ The placement of the cable tie on the drop tube end is required to prevent cases in the hose catching on the end of the drop tube. It's a simple idea, but it does work.

In most cases, the end of the hose where it mounts on the drop tube is not required to be secured, but can be secured if required, using cable ties or hose clamps (not supplied).

## ➤ Processing Rates

The Decapper can process up to about 3,600 cases per hour.

Typical rates from case feeders are between 1,500 to 4,500 cases per hour depending on their design, condition and fill amount. Modified / upgraded case feeder motors (variable speed) will perform significantly better and are recommended for all RollSizer.com machines. Aftermarket casefeeder plates can also significantly improve the casefeeder performance.

- ❖ It is critical that you do not try to process cases through the Decapper faster than the casefeeder can reliably supply.

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- ❖ If you are getting jams due to cases not stabilizing in the decapper pegs or falling over after decapping, Check the cases are decapping first, then look at the case pusher adjustment in this manual.

## ➤ Calibre Conversions

### ➤ Pistol conversions

The calibre conversion for a pistol calibre is simple.

- ❖ Select the correct drop tube.
    - a. The Small Pistol drop tube handles 380ACP, 9mm, 38Super and 40S&W.
    - b. The Large Pistol Drop Tube handles 45ACP and 44Mag.
    - c. The Small Rifle Drop Tube handles 223 and 300BLK cases and similar cases. Rifle Drop tubes have slots cut in them.
    - d. The Large Rifle Drop Tube handles the 308Win, 243Win and 7,62x51 and similar cases.
  - ❖ The slots in the rifle drop tubes need to be aligned so the cases can be pushed out.
2. Adjust the Drop tube height. The drop tube needs to be adjusted per the photograph below.
  3. Check and adjust the drop tube height. Drop 2 cases into the drop tube and check the extractor groove of the second case is visible, adjust the height of the drop tube as required. Refer to the photograph below.

Adjust Drop Tube height as required.



The full extractor groove of the case above must be visible below the edge of the drop tube. If you are using mixed height cases then you need to allow for the tallest case.