



## **Commercial Rollsizer Operating and Maintenance Manual**

**PLEASE READ THIS MANUAL BEFORE YOU CALL ASKING FOR TECHNICAL SUPPORT**

We at rollsizer.com 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 rollsizer as well.

Please only use clean brass in the rollsizer. The use of dirty brass in the rollsizer will wear out the base and disc and is not a warranty claim.

The rollsizer is a commercial machine and not a show pony.

Minor scratches and marks occur in fabrication and transportation process and are not considered a warranty item. The support brackets are designed to bend under excessive force (like being dropped by a courier) to prevent damage to the gearbox. This is a way of protecting your investment.

**The use and operation of the rollsizer is subject to the Terms and Conditions available on the ROLLISIZER.COM website.**



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## Introduction

The rollsizer you have purchased is a heavy-duty commercial grade machine that will supply years of reliable operation if the processes and safety procedures in this manual are observed.

The rollsizer has been designed to remove the bulge from the base of the cases, and when combined with a standard full-length sizing die, will result in a smooth and uniform case sidewall.

This combination will offer the best and most consistent overall shape and performance in the final loaded ammunition.

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

- The best process is to Clean, Rollsize THEN full length size as part of the reloading process. Do NOT full length size before roll sizing as the cases can spring back to oversize.
- If you wish to de-prime your case as part of your cleaning routine before roll sizing, use a universal decapper and not sizing die.
- Only clean, dry, (fired or deprimed) cases should be used in the rollsizer, no case lubrication is required. If cases are lubricated, they will not roll correctly.
- Under no circumstances should live ammunition or cases with live primers be processed through the rollsizer as this could result in injury or death.
- Check the drop tube height is adjusted before using the rollsizer, refer to the manual below.
- Fill the rollsizer feed tube with cases BEFORE starting the rollsizer.
- Only use sorted brass in the rollsizer, whilst it is not likely to damage the rollsizer but you will waste a lot of time picking the cases out and you will bend / break the wire levers and possibly the case containment spring. Take the time to sort your cases.....
- Running the rollsizer empty means either the rollsizer is processing too fast (take bolts out of the conversion disc) OR the casefeeder is not keeping up (due to over / underfilling the casefeeder). Rollsizer.com can supply casefeeder upgrade kits via the website.
- Processing brass through the rollsizer at a rate faster than the casefeeder can supply will jam the rollsizer. This is not a machine fault.
- The wire levers can be reused / reconditioned, do not throw them away if / when they bend. Refer to this manual for details on how they can be reconditioned.
- The use of steel cases (including stainless steel cases) have been known to leave traces of steel (galling) on the rolling faces and may damage them as a result, their use is not recommended and is not warranted by rollsizer.com.
- Any modifications to the rollsizer will void the warranty, if you have a question on the rollsizer or its operation, please ask us.
- Rollsizer.com products are sold subject to the terms and conditions detailed on the website. Refer to <https://www.rollsizer.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 and never allow children or minors near this machine whilst it is operating. Never attempt any sort of work or adjustment on the machine whilst the machine is energized or operating. Work should never be done on the rollsizer 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 rollsizer, if the ammunition or components are ignited, there is significant risk of injury or death as a result.

The rollsizer is a compact machine but is heavy and can exceed 30kg (66lbs) as delivered and should be handled with care to prevent injury to yourself or others. Seek assistance of others before handling the rollsizer.

## Disclaimer

The purchaser and users of this machine expressly acknowledges 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 for the use of the rollsizer and any actions that the use that the rollsizer 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 reloader to verify the suitability and purpose of the finished product.

All Rollsizer.com Pty Ltd products are subject to the terms and conditions detailed on the rollsizer.com website.

### 1. Why Rollsize cases?

Rollsizing is a case processing method that removes the bulges in the base of spent cases and allows the ammunition to be reloaded and reused with a much higher degree of reliability. The ammunition is more consistent in quality and time that would be otherwise wasted in case gauging and wasting loaded ammunition and components can now be used to shoot.

The shooter / reloader can now consider the option of purchasing bulk "once fired" brass with confidence the ammunition will reliably perform.

### 2. Why reload?

The reloading of ammunition is done for a variety of reasons:





- Cost, reloaded ammunition is cheaper than most factory manufactured ammunition.
- Various shooting sports require ammunition to be loaded with specific characteristics, factory ammunition is not usually loaded to suit the specific sport requirements.
- Reloaders will reload once fired or range picked brass and the origin of this brass may be from oversized or unsupported chambers and is required to be resized to meet the appropriate specifications.
- The reloader can control the size, specification and quality of reloaded ammunition to suit their requirements.
- Ammunition can be tailored more easily to suit specific applications.
- Brass can be reused saving time, cost with higher quality than often available from commercially reloaded ammunition.

### 3. What are the main steps in reloading?

Please consult your reloading manual if you are not sure of the reloading processes. The steps in reloading are generally as follows;

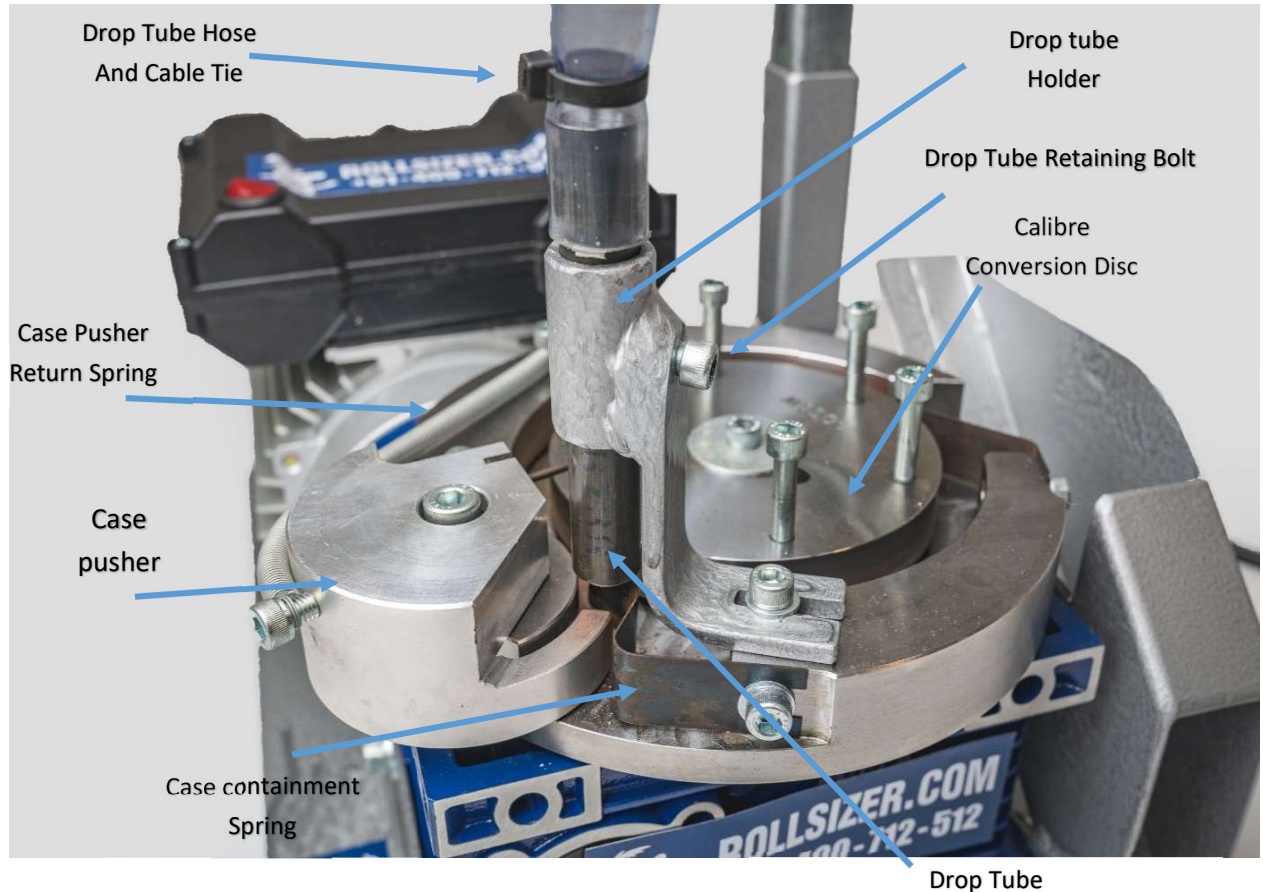
1. Carefully inspect, sort and separate your spent brass checking for damaged, cracked or unserviceable cases.
2. Clean the cases to remove dirt, stains etc. via tumbling or wet processing. Do not full length size cases before roll sizing. The cases will “spring back” if sized and will not perform as consistently.
3. **Rollsize your brass.**
4. Reload normally using standard sizing dies (not undersized or small base circle sizing dies).

### 4. What is supplied with the Rollsizer?

The rollsizer will generally be supplied with the following components, this may be different depending on the ordering process used;

1. Electric Drive rollsizer with case pusher, drop tube holder with the calibre conversion fitted and drop tube for that calibre. Subject to your specific order the motor will be supplied in either a single phase 110VAC, or a 220VAC / 240VAC motor. You will need to install and adjust the drop tube height to suit the cases being processed. 220VAC motors for the USA / Canadian and other international markets may need to be fitted with specialized plugs. Please consult your local electrician to undertake this work.

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



2. Additional caliber conversions and drop tubes (if ordered).
3. Standard Spares kit comprising of;
  - a. 1 x Case pusher return spring.
  - b. 1 x Spare spring wire lever (WSE-SPLP)
  - c. 1 x Spare pistol conversion bolt and 1 x spare rifle conversion bolt.
  - d. Misc spare bolts (M6x10, M6x16) and oversize washers for the rollsizer (all bolts are metric).
  - e. 1 x Case containment spring.
  - f. 1 x Case eject spring.
4. Flexible PVC hose approximately 1.3m (4') long with cable tie attached to one end and machined brass casefeeder adaptor piece (suitable for a Dillon™ casefeeder) on the other end. A cable tie is tied on one end of the hose and this end goes on the drop tube.



5. 25mm square tube approximately 420mm long (17" long) for the use of a dedicated casefeeder. This will fit the current Dillon™ casefeeders or can be modified by the buyer for other casefeeders as required.

## 5. Installation requirements

The rollsizer is reasonably compact, but heavy. The delivered box with conversions can weigh in excess of 30kg (66lbs) in some situations. The placement and position of the rollsizer should be carefully considered before handling the rollsizer.

The rollsizer has the following external dimensions (this is the rollsizer itself, not the shipping box);

Length 470mm (19")  
Width 260mm (11")  
Height 260mm (11")

The rear of the rollsizer is where the electric motor cooling fan is located, and careful consideration should be given to the clearance between the back of the electric motor and any solid walls to allow air circulation when running. A minimum of 75mm (3") is required at the back of the motor when running more distance is required when operating in a hot environment.

The rollsizer does not need bolting down in the majority of installations, but this is required to be checked for each and every situation. **It is the buyer's responsibility to review and assess the risk of damage and or injury to personnel when considering the use and placement of the rollsizer.**

Before you commit to the location of the rollsizer, please consider the following key issues.

- Casefeeder location when the rollsizer is in use.
- What is the route of the flexible hose between the casefeeder and the rollsizer? The hose route needs to be smooth without kinking the hose.
- Is there clearance at the back of the rollsizer for the cooling fan to operate correctly?
- Can you access the center bolt holding the caliber conversion disc in this position to allow you to do caliber conversions without moving the rollsizer?
- Can you see the cases under the drop tube to check the drop tube is adjusted to the correct height?





## 5.1 Under bench installation



Placing your rollsizer under your reloading bench near your reloading press will allow you to utilize your reloading press casefeeder without relocating the casefeeder. If you position your rollsizer so the connecting hose has a clear route to the casefeeder you will get the best out your rollsizer.

In an under-bench installation you can push the rollsizer back under the bench when not in use.

Please note, the longer the flexible hose is, the better the casefeeder performance. This is due to the greater storage capacity accommodating natural fluctuations in the casefeeder performance.

## 5.2 Benchtop installation

If the rollsizer is to be placed on a benchtop, a dedicated casefeeder can be used with the rollsizer. A casefeeder support tube has been supplied with the rollsizer for this and may be used without modification for the Dillon™ casefeeder or modified as appropriate for other casefeeders. The support tube will drop into the mounting post welded to the rollsizer base and will fit a standard Dillon™ casefeeder. The support post does not need to be secured further.

The casefeeder mounting post welded to the base is offset slightly to the drop tube and allows the adjustment of the drop tube height when doing calibre conversions.

Please consider the case discharge trajectory from the rollsizer as the cases can sometimes “spring” from the rollsizer. The case drop trajectory will define where you place a container to catch your rolled cases.

## 5.3 Casefeeder and connecting hose

The rollsizer has been supplied with an aluminum adaptor and hose to connect to the standard Dillon™ casefeeder. Refer to photo below (this one is brass we know, but you get the idea...).





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

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

Install the hose end with the cable tie on it on the drop tube. Run the hose from the rollsizer to the casefeeder. Insert the adaptor clip into the casefeeder and mark out where to cut the hose. The hose route should be smooth and clear of equipment, allow some extra length in the hose, mark the hose. Measure and check again before you cut the hose.

To mount the hose onto the aluminum 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.

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 must be hung vertically from one end or 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. Its nothing special 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).

Please note, do not connect the rollsizer to the power supply until all the positioning and adjustments of the rollsizer, connecting hoses and all the ancillary checks have been done. Please ensure all hands, clothing and other equipment are clear of the rollsizer before plugging the rollsizer in and tuning the rollsizer on.

## 5.4 Power supply

The 110VAC rollsizers are supplied with a 5-15 NEMA plug as standard. The 220VAC rollsizers are supplied with either a Euro plug or a bare lead (USA sales). Please consult your local electrician to fit a plug to suit your requirements. All plugs MUST be fitted with an earth pin for your safety. Failure to use an earthed power supply can be dangerous if a fault develops in any part of the power circuit.

The on / off switch on the rollsizer should be illuminated when the power is supplied to the rollsizer.



If the power supply is on to the rollsizer and the switch is not illuminated, do not use the rollsizer and consult with Rollsizer.com via [info@rollsizer.com](mailto:info@rollsizer.com) or call us on +61-400-712-512.

The illumination of the on / off switch should not be relied upon to verify the power is disconnected to the rollsizer always remove the power lead from the wall socket to confirm the power is isolated.

## 6. Casefeeder performance and feed rates

The rollsizer is a fixed speed machine, the case processing rate is controlled by adding, or removing bolts from the center disc. This is a simple, cost-effective system to adjust the processing rate.

The pistol calibre conversions are fitted with 6 tapped holes, the rifle calibre conversions are fitted with 4 tapped holes. With all 6 bolts installed, the rollsizer will process up to 6,400 cases per hour (60hz motors) and 5,300 cases per hour (50hz motors).

**It is critical that you do not try to process cases through the rollsizer faster than the casefeeder can supply reliably and consistently. This will result in jams and the wire lever bending. 99% of the problems can be directly related to this.**

Alternative casefeeder options are available on the rollsizer.com website.

Unless you have a modified or a commercial casefeeder, running 6 bolts will quickly exceed the casefeeder capacity. You will then run out of cases in the feed hose. When a case is then dropped into the feed tube, it will bounce off the rollsizer base and the case can jam between the drop tube and the case pusher, the wire lever will flex, if this happens regularly the spring wire will bend and eventually break. This flexing is noticeable by a different sound to the normal rollsizer operation.

**This is not a machine fault, this is failsafe mechanism to prevent damage to the rollsizer. Spares have been provided in your spares kit.**

**Installing heavier gauge wire or modifying the casepusher can result in damage to the rollsizer and will not be considered as warranty claim.**

**It cannot be emphasized enough that you must limit the rollsizer processing rate to match the AVERAGE casefeeder performance. It is recommended that for Standard Dillon™ casefeeders, a maximum of 3 bolts are installed for pistol and 2 bolts for rifle calibres. For older Dillon™ casefeeders this may have to be reduced even further.**

If you reduce the numbers of bolts, try to space the bolts out as evenly as possible around the disc, this is to spread the load on the gearbox bearings as much as possible.

The spring wire lever is a tempered high-grade spring wire and can flex many times before bending / breaking and this can be prevented by the following simple steps;



- Keeping the wire lever approximately 30mm from the case pusher per the photograph below. In some situations, reducing the length further will provide stability in rifle conversions.
- From September 2020 we superseded the old straight wire levers (shown below on the left) with the wound spring wire levers as shown below on the right. These are now standard fitment from September 2020 onwards. The new wound spring wire levers are an optional item and can be retrofitted to all previous rollsizers and are available for purchase from rollsizer.com. Part number WSE-SPLP. These levers will offer much longer operational life than the older straight wire levers.



Spring wire lever is approx. 30mm long when fitted as shown.

Please note the position of the coiled section of the spring.

- Maintaining a column of cases that is always visible above the drop tube.
- Ensuring the drop tube height is adjusted correctly and that the extractor groove is visible for the case immediately above the bottom case the photograph below.
- **The wire levers that have been bent or fatigued can be reconditioned by straightening them and putting them in an oven at 260 Celsius for 1 hour. This will restore the spring wire temper.**



The extractor groove of the case above must be visible.

## 7. Calibre conversions

### 7.1 Pistol conversions

The calibre conversion for a pistol calibre comprises of 2 basic components

- Calibre specific conversion disc (with the calibre engraved on the disc)
- Drop tube, there are 2 different tubes
  - Small pistol drop tube covering 380ACP, 9mm, 38S/SC, 40S&W, 38SPL/357Mag
  - Large Pistol drop tube covering 45ACP, 44Mag

The 38Special, 357Magnum and 44 Magnum cases require the use of a rifle wire levers or a rifle stand as they are too tall to fit under standard Casepusher wire lever. Refer to photograph below.

Later modified version of the Casepusher showing the rifle wire lever installed and the slot cut into the case pusher.



### 7.2 Rifle conversions

At present there are 2 rifle conversions available.

- 223 / 5.56 NATO (includes the 300BLK and most other hybrid cases based on this case).
- 308Win / 7.62x51Nato (including the 243 and most other hybrid cases based on this case).





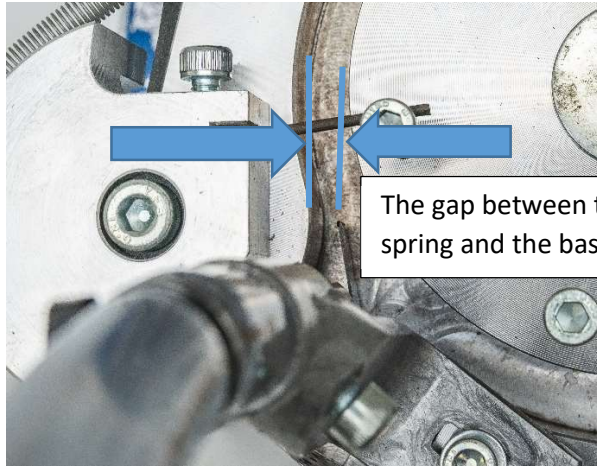
For each rifle conversion a specific drop tube is provided and a calibre conversion disc.

You will need to use the rifle wire levers for 357Mag, 44Mag and all rifle calibres.

### 7.3 Calibre conversion process

To change calibres you need to;

1. Remove any residual cases from the case feeder, check the casefeeder is empty by running for a short time and listening and checking for any cases in the case feeder or feed tube.
2. Turn off the rollsizer and unplug the Rollsizer lead from the wall socket. SAFETY FIRST.
3. Using a 5mm Allen key (not supplied) and remove the bolt and oversize washer in the center disc. Remove the disc and store in a dry place. (If the work area is subject to high humidity, wipe the disc down with an oily rag (lanolin also works well) to prevent surface rust and place in an airtight bag). If the disc does not lift up, rotate it (alternating clockwise / anticlockwise) on the shaft whilst lifting the disc up evenly with the bolts.
4. With the disc removed, wipe down the base assembly and shaft with a dry rag to remove any dust or residual dirt or tumbling media etc.
5. Install the new conversion disc ensuring the disc and shaft hole in the disc is clean with no traces of oil or rust preventative. Reinstall the center bolt and oversize washer, install the bolt snug tight only.
6. If the conversion requires the drop tube to be replaced, remove the drop tube by unscrewing the bolt securing the drop tube and replacing it with the required tube. Rifle calibres use a calibre specific drop tube and must be used.
7. 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. Check the clearance of the case containment spring as the rifle conversion drop tubes can interfere with the containment spring. Refer to attached photograph.



The gap between the case containment spring and the base should be 3-5mm

8. Manually stroke the case push assembly to ensure the cases clear the drop tube. Adjust as required.
9. For rifle conversions, install the calibre specific drop tube per the list above. Check the alignment of the drop tube so that the cases push out of the drop tube cleanly without binding on the sides of the drop tube. Adjust the height and rotation as required. Manually stroke the cases out from the drop tube to check clearance from the cases and containment spring. When the cases are pushed out from under the drop tube they should be held by the containment spring.
10. When the drop tube is correctly positioned, leave 1 case held in position and fill the casefeeder and feed hose. If installing a rifle conversion manually drop a few cases in the drop tube first.
11. When doing the calibre conversions for the first time it is recommended the wire lever be removed to allow the operator to manually adjust the drop tube and to check the case height and side clearances.
12. When reinstalling the wire lever ensure the lever does not extend more than 30mm. if the lever extends more than this it will cause the cases too flick out and fall over especially in the rifle calibres. The ideal dimension is between 28-32mm. Refer to photographs above.

**Please note, the wire lever only needs to be long enough to more the case out of the way so the next one can drop down, no more. This method improves case stability and reduces lever damage.**

13. When converting from a pistol to a rifle conversion, the wire lever will need to be changed from a straight lever to a rifle conversion lever (the rifle wire lever is in the shape of a Z). Install is per the attached photograph below. In some situations, the wire lever length on the rifle wire lever may need to be trimmed to reduce the amount the rifle cases are pushed out of the way. The rifle lever is supplied with a short and long leg. Select the arrangement that pushes the case out of the way sufficiently so the next case drops down, no more.



## 8. Rollsizer operation

The rollsizer must be unplugged from the power supply before any work is done. The rollsizer operation is as follows;

- The rollsizer is setup and installed per the above procedure.
- Check the drop tube size is correct for the case type and the height is adjusted correctly.
- The correct caliber conversion disc is installed.
- Only clean and carefully sorted cases matching the calibre conversion are placed in the casefeeder and the casefeeder will then drop the cases base first into the hose connecting the casefeeder to the rollsizer.
- Once the rollsizer feed tube is full, turn on the rollsizer. (Refer to rifle specific operations previously).
- As the disc rotates, the bolts in the center disc will contact the wire lever and the case pusher will rotate pushing the case out from underneath the drop tube.
- As the case is pushed clear of the drop tube, it allows another case to drop down and sit on the top of the case pusher.
- When the case pusher retracts, the case will drop down in front of the case pusher and the process repeats.
- When the case is pushed out from underneath the drop tube, the case will be held by the case containment spring. This spring is designed to hold cases lightly and prevent the longer pistol cases and rifle cases from tipping over.
- When the next case is pushed out, the case held by the containment spring will move into the rollsizer, on smaller cases there can be 2 and sometimes up to 10 cases in line before the rollsizer picks up the case and starts rollsizing. In these situations, the cases are not as stretched / bulged. The cases will all be sized to a consistent shape at the end of the rollsizing process.
- The rollsizer processing rate is controlled by the number of bolts installed in the caliber conversion disc. If the casefeeder cannot supply cases faster than the rate which the rollsizer is processing them, then you need to remove bolts from the disc.



## 8.1 OK, I have roll sized my cases, now what?

Once your cases have been roll sized, your normal reloading process can occur. It is important to note your reloading press may need adjustment. If in doubt about any of the reloading processes, obtain support from an experience reloader from a local club or through your local shooting association.

In most cases, the only adjustment required is that the crimp station may need adjustment.

For rifle cases the full reloading process will need to be rechecked again, in some cases the overall length may have increased and rifle cases will often require trimming.

**It is strongly recommended the reloading process and reloaded ammunition checked carefully before reloading quantities of ammunition. This include chronograph testing and checking signs of overpressure in the loaded rounds.**

## 8.2 My cases do not gauge after roll sizing

**The reality is that not all cases can be reloaded reliably. Cases which have been fired in Machineguns and / or guns with loose chambers cannot always be reliably reloaded.**

The roll sizing process only sizes the lower 8-13mm (1/2") of the case. This is the section of the case that is unable to be sized in the full-length sizing process. To complete the case gauging process, the cases must also be full length sized. **For best performance rollsize your cases before full length sizing.**

When the cases are roll sized, the cases will lengthen very slightly. In the majority of situations this is of no significance, but it is common for the crimp dies to require adjustment for pistol cases. It is very rare for pistol cases to require trimming as they usually shrink with multiple reloads.

Bottleneck pistol cases such as the 357SIG and rifle cases **will** require adjustment of the seating dies and crimp and must be checked carefully. For rifle cases, full length / neck trimming may also be required.

The following procedure is a process that will assist in establishing the adjustment required in your reloading press for roll sized cases.

1. Clean and rollsize your cases per the details outlined above using the correct conversion kit.
2. Check the adjustment of your full-length sizing die in your reloading press. Remove the case and check again in the case gauge. The case should seat full depth in the gauge.
3. If the case still does not fully seat, then it is likely the full-length sizing die needs to be adjusted further. Repeat this step and until the empty case gauges correctly. **DO NOT USE UNDERSIZE DIES WITH ROLLSIZED CASES. AMMUNITION MAY BE BELOW SAAMI SPECIFICATIONS AND CAN BE UNSAFE.**
4. Reload the case (without primers or powder) and repeat the process with a single case. Once this is correctly adjusted repeat with as a continual process reload 10 or so dummy cases continuously. This process often shows up movement / flexing in the shell plate holder of some progressive presses.





5. If the dummy cases do not insert fully into the case gauge, the reloading press dies may need further adjustment, this is normal.
6. To verify where the adjustment is required, remove the dummy case and place permanent marker lines around the entire round and let dry.
7. Once dry, place the case inside the case gauge (or chamber check in your firearm) and twist slightly (IF POSSIBLE) to make a witness mark on the case. The witness marks will be visible by scuff marks on the case. These scuff marks will identify the areas where the cases need adjustment. Consult your press manual for these adjustments. Please do not do this with a fully loaded round (I.E. powder and primers inserted into the round). Per the photograph below the witness marks will often show up areas unexpected.



Please note that all reloading presses flex to a degree (even high-end commercial presses). The settings of the reloading press should only be considered final once the shell plate assembly is filled with cases and the press is fully loaded. It is often necessary to adjust the dies further once the shell plate is full of cases. Roll sizing your cases will reduce the load on your reloading press to a significant degree.

It is important to note that different manufacturers of case gauges use different tolerances. There are many case gauges in the market that have very tight tolerances. The rollsizer.com machine has been designed to roll cases to meet the SAAMI specifications with normal sizing dies.

The majority of failures to cases that fail to gauge correctly relate the following reasons;

1. Full length sizing die is incorrectly adjusted. Sizing die should contact the shellplate when sizing.
2. Excessive case mouth flaring / incorrectly adjusted crimp. This can be from too little crimp or too much crimp which causes the case mouth to spring back.
3. Incorrectly seated bullet (usually angle seated)
4. Incorrect overall length (usually too long)
5. Dust / dirt in the case gauge (often picked up from case lube)
6. Full length sizing dies are worn out (yes they do wear out, even carbide dies).
7. Machinegun fired or excessively fired / bulged cases (earlier Glocks used unsupported chambers and some major Power Factor guns), If you cannot easily read the headstamp on the case, its probably worn out, bin it.



Rollsizer.com cannot guarantee all cases will case gauge, the cases, gauges, sizing dies and the cases themselves all vary and are not within our control.

Reloaded cases require consistent monitoring and adjustment of the dies and in high volume commercial applications, the sizing dies require replacement on a regular basis.

Rollsizer.com is able to provide special order undersized calibre conversion discs if required. Please contact us at [info@rollsizer.com](mailto:info@rollsizer.com) to discuss your requirements.

For firearms subject to power factor requirements, the ammunition should be re-checked, and firearms point of impact be checked as this may have changed due to rollsizing.

Based on feedback from buyers, (in general) the power factor in reloaded pistol ammunition used in IPSC / USPSA matches, rollsized ammunition will usually increase in factor by approximately 1-2 points and the velocity spread will reduce considerably resulting in significantly better accuracy. Overall, we have found the ammunition will nestle in magazines better and high capacity magazines will allow extra room with rollsized ammunition. You should still check your ammunition though with any changes.

If you have any questions on the case gauging or final sizing processes, please check the items above first then if unsuccessful, contact us at [info@rollsizer.com](mailto:info@rollsizer.com)

## 9. Why do cases stretch?

When ammunition is fired, the cases are stretched to match the shape of the chamber of the firearm used. The chamber sizes are usually manufactured to established standards and tolerances (SAAMI or CIP) but the final chamber dimensions are often quite different between the manufacturers and their market application. Whilst the majority of guns available in the market are technically supported chambers, these do vary significantly.

In some situations, loose / oversized chambers are required for a particular firearm design, other custom applications may result in chamber tolerances that are very tight or even undersized (for example high end target firearms).

In many Military or Law Enforcement, Concealed Carry / Self Defense applications, absolute reliability under difficult and less than perfect conditions are seen as more important than sub 1" groups at 100m. In these (MilSpec) applications, the chambers are often looser to ensure reliability across a wide variety of ammunition. These chambers will result in stretched and deformed cases, reloading isn't the priority here.

Stretching also occurs when running high pressure / high power factor ammunition in Competition firearms particularly with light recoil systems, the quicker unlocking and reduced mass in the slide often leads to a case that is partly unlocked before the pressures have reduced. A common example is seen in the use of 9mm major ammunition in IPSC / USPSA competitions as well as blowback actions used in PCC competitions.

The normal processes used in reloading cannot remove the case bulge as the shell plate holding the case prevents the sizing dies reaching the location of the bulge on the case. A few alternative methods of



removing the bulge include push through die systems. These low volume / low processing rate systems can work to a degree. Many of these systems are limited to specific case types (such as rimless cases) or are limited in the extent in which the cases can be rolled or reshaped due to the equipment design.

The rollsizer.com process is designed to remove the bulge at the base across the calibre conversion ranges offered to ensure the reloaded ammunition case will gauge and perform reliably.

## 10. Why don't you roll the rim on cases?

Good question, the simple answer is that we at rollsizer.com feel that it is not required in over 99.9% of situations. In the extensive testing processes undertaken over many years, we identified that in the majority of occasions, rim deformation was not the root cause of why ammunition was not reliably feeding.

The investigations by the designer (and mechanical engineer of 30+ years' experience), identified the root cause of the ammunition failure was in fact due to the location and shape of the case bulge. In some situations, the case stretch was eccentric, and the resizing process did not always reform the case body concentric to the case rim. When the reloaded case was chambered in the firearm, it jammed as the rim locked up on the breech face. This is not a reflection of the firearms manufacturers, but a recognition that these manufacturers make their competition firearms with tighter tolerances than others.

The process adopted in the rollsizer.com machines have recognized this, and the sizing / arrangement and tolerances adopted in the rollsizer.com machine has been designed to minimize this problem.

In the very rare situations where the rollsizer.com machine does not resolve this problem, we see the most likely scenario is that the case is unserviceable as a reloaded case. In most cases the cases were excessively worn with little or no headstamp markings visible.

Rollsizer.com cannot guarantee every case will case gauge reliably as there are too many factors outside our control including the ammunition cases, the load data and projectiles used for the ammunition, the reloading processes used after rollsizing as well as the condition and type of firearm used all can have a significant effect on the ammunition quality and performance.

Should you need to discuss this in detail, please contact at [info@rollsizer.com](mailto:info@rollsizer.com) or by using the contact details below.

## 11. What maintenance is required on the Rollsizer?

The short answer is, very little.

The equipment is industrial rated and requires very little maintenance. A small spares kit has been supplied with the rollsizer and generally most of these components should rarely have to be replaced. Should you require replacement components please contact us using the contact details below. The commercial



rollsizer uses ISO320 Grade mineral oil and we recommend oil changes every 4,000 hours of operation. The oil fill quantity is 250mL (0.250L).

If the rollsizer is used in a high humidity environment, the machined steel surfaces will develop rust. The use of a rust preventative spray is recommended when not in use. Please ensure you wipe all traces off before you rollsize cases.

Should the electric motor stop working, or trip out and electrical circuit breakers or safety fuses 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 [Rollsizer.com](http://Rollsizer.com) using the contact details below.

## 11.1 Pre-start inspection

Prior to use, the following checks should be done;

- Visual inspection, check the power lead is in good condition with no damage or marks and is clear of any rotating equipment, check the connecting hose is straight with no kinks.
- Check there is a minimum of 75mm clear from rear of the fan housing for the cooling fan to work
- Check the base and rollsizer discs are free of dirt and oils or other debris. If the base area requires cleaning isolate the power supply and remove the power lead before attempting any work.
- Check the rollsizer has the correct calibre conversion installed, the drop tube is adjusted correctly and the casefeeder, connecting hose and rollsizer are clear of any cases.
- Check the power supply is safe and circuit breakers are functioning correctly.
- The gearbox does not have any oil leaks.
- When the power supply is turned on, the on / off switch located on the terminal box is illuminated.
- The illuminated switch turns the rollsizer on / off as required.
- The wire lever (pistol or rifle lever) is adjusted correctly and does not exceed 30mm in length.
- The drop tube and flexible hose is clear of rubbish, tumbling media or stuck cases.
- The case feeder is clear of cases and is operating in accordance with the manufacturer's manual.

The rollsizer base and calibre conversion discs are machined steel and can oxidize / rust if left in a wet or humid environment. It is recommended the calibre conversion plates and all unused metal components are wiped with an oily rag and packed in the supplied calibre conversion boxes supplied with the rollsizer.

Any surface rust can be removed with steel wool and retreated with a light coating of oil.

Prior to use the discs and all components should be wiped clean and all traces of oil / grease removed using degreaser and a clean, lint free cloth.

For rollsizer discs in constant use, the ongoing heat generated from the motor and gearbox will keep away any moisture and as such they are unlikely to require any treatment. If minor surface rust occurs use steel wool to remove this.





If any brass residue is on the base or rolling surfaces of the rollsizer, this can be removed by light rubbing with steel wool, do not use sandpaper or any other abrasive method as this will damage the rolling faces and lead to marks on the cases during the rolling process.

If the operator processes uncleaned or dirty brass through the rollsizer it will damage the contact faces of the base and calibre conversion discs. The faces will wear, and the finished size and surface finish of the case will be compromised.

**No warranty claims will be considered if unclean brass is processed through the rollsizer.**

### 11.3 What tools do I need for the calibre conversions?

You need a single 5mm Allen key (not supplied) to adjust the dropper tube height, remove or install bolts in the center discs and remove the bolt holding the conversion disc.

All bolts used in the rollsizer are Gr12.9 Socket head metric bolts. The bolts used in the conversion discs have shortened threads. Do not use standard thread length bolts or damage to the rollsizer will occur.

## 12. How to contact us at Rollsizer.com

Phone +61-400-712-512  
Email. info@rollsizer.com

Postal address Rollsizer.com Pty Ltd  
P.O. Box 1017,  
Roleystone, Western Australia  
6111, Australia

## 13. Rollsizer FAQ's

### 1. My cases are jamming?

- A. The major cause of jamming is from the use of unsorted brass. The wire levers are designed to flex and ultimately break to prevent further damage to the machine. Other main causes include;
- B. Cases nestled inside each other (38Supercomp sits inside a 40S&W case nicely) Also processing taller cases (such as 38 Super) with 9mm cases for example will result in jams.
- C. The drop tube is incorrectly adjusted for height.
- D. The casefeeder ran out of cases.
- E. The case containment spring is bent or needs adjusting. Refer to the photograph above for the correct position for the case containment spring. (a spare case containment spring is in your spares kit and these are available online via rollsizer.com. On rare occasions the case very containment spring may need adjustment and the edge of the containment spring should be parallel to the side of the rollsizer.



2. How long will brass last with rollsizing?

- A. Very hard to say, generally much longer than without rollsizing, but too many issues contribute so it is too hard to state exactly. The owner of rollsizer.com normally gets 40+ reloads from good quality brass before the cases start cracking / wearing out.
- B. Based on the feedback from reloaders and processors and from the designers personal experience there is no evidence that rollsizing is detrimental to reloading multiple times. Some cases (such as nickel plated cases) show evidence of case mouth cracking with multiple reloads but no problems have been seen with the rollsizing process.

3. Do I have to resize the cases after rollsizing?

- A. Yes, all rollsizing processes require cases to be full length resized afterwards. The resizing process is usually part of the reloading process so no additional effort is required.

4. Why is full length sizing required if the base has been sized?

- A. The base is shaped to the specific calibre requirement but requires the full length sizing die to ensure the rest of the case is sized correctly.

5. Why is this rollsizer different from other processes such as small base circle dies?

- A. Rollsizing process shapes the case where full length sizing dies cannot reach. The dies are restricted due to the design of the cases and from the shellplate in the reloading process. Also the rollsizing ensures the base is sized back to a "factory" range size (midpoint between the minimum and maximum SAAMI specifications) this is the most reliable point for ammunition and is where new factory ammunition is made. The rollsizing process also forces the case concentric to the rim to minimize rim lock up in firearms with tight chambers / breech faces.

6. My cases have a small mark around the base of the case after rollsizing.

- a. The rollsizing process can leave small marks or indentations on the cases after rollsizing. This is normal and does not affect the cases. The indentations are often most pronounced with heavily stretched cases. With regular reloading and re-use the marks or indentations will go away.

7. How long will it last?

- A. The rollsizer was designed for a long life and some rollsizers have now processed well in excess of 20,000,000 cases with no issues.

8. What does it weigh and how loud is it?

- A. The machine is compact but does weigh approximately 60Lbs (27kgs). It is an industrial drive assembly. It could have been smaller/ cheaper but was selected to offer an extremely long life. The machine does not need to be bolted down for most installations but has been provided with holes in the base for that purpose if required. The rollsizer operation is fairly quiet, and



you only hear a click, click sound as the case pusher returns, most case feeders are substantially louder than the rollsizer.

9. Where can it be placed?

- A. The rollsizer can be placed on the bench next to your press or under it. The rollsizer is supplied with a length of PVC tube and is cut by the buyer to suit their installation. The tube will allow you to feed cases from your casefeeder to the rollsizer and the rollsizer has a discharge tube to direct cases into a drum or other container. In general, the longer the feed tube the better as the longer tube provides more case capacity from the casefeeder.

10. I want to be a reseller, how do I become one

- A. Reseller enquiries can be made via contacting Rollsizer.com via the contact details above.

11. How will my reloads change after rollsizing.

- a. Feedback from reloaders indicate that after rollsizing the loads are more reliable and feed more consistently from magazines and into revolvers especially if using moonclips. The tighter / more consistent case dimensions results in tighter Chronograph spread. The Designer regularly gets variations less than 5FPS when measured with a Labrador chronograph.
- b. After rollsizing, you can expect a very slight increase in bullet velocity but this can vary between firearms and the chamber tolerances. We recommend checking loads are safe and are operating with published load data from reputable sources whenever any changes are made to the reloading process including rollsizing.