NOBLE TRUCK SHUTTERS

MANUFACTURE - INSTALLATION - REPAIRS

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INFORMATION FOR REAR MOUNTED ROLLING TYPE, LIMITED SIDE ROOM SHUTTERS USING SQUARE END AXLE SET UP

Please see the "OUR PRODUCTS" page of this site for individual component measurements and shutter options.

The rear mounted type of shutter is for smaller openings within tool boxes where the use of a sliding shutter would be inconvenient. If the back wall of the toolbox has hardware for work items or shelving attached to it, then a sliding shutter may not be able to travel past these obstructions. In this case, a spring assisted roller would be mounted to the rear top corner of the toolbox. This helps keep the header panel to a minimum of 100mm. However, room will still be lost where the shutter wraps around the roller.

Information required for the manufacture of rear mounted, square end rolling shutters includes: (See Figure 1.0)

1. Daylight width,
2. Daylight height,
3. Header height,
4. Internal side room width,
5. Overall measurement between walls (internally),
6. Depth of tool box,
7. Fit between (recommended) or Fit behind,
8. Shutter finish,
9. Track type required,
10. Lock type required.

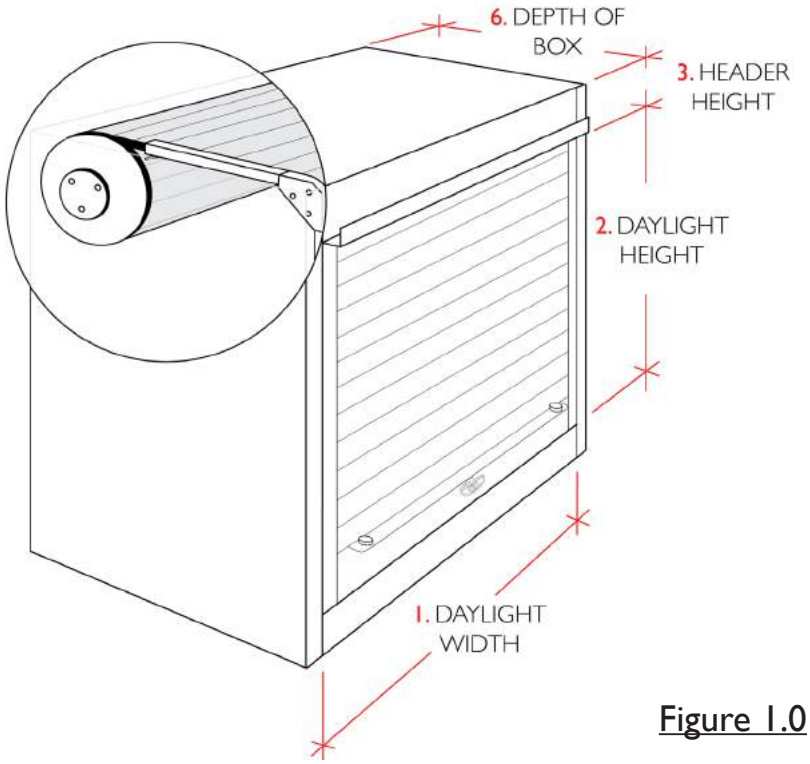

Figure 1.0

It is not recommended to use this type of shutter on wider openings as it travels through nylon corners (turning 90 degrees), which are affixed behind the header panel (See Figure 3.0). The larger the shutter, the more deflection along the slat extrusions that sit at the nylon corners when the shutter is in the closed position. Eventually, on larger openings, the slat will begin to split due to the bounce of the vehicle and the pressure on the slat extrusions located within this area. For wider openings, a standard shutter which rolls up directly behind the header is recommended.

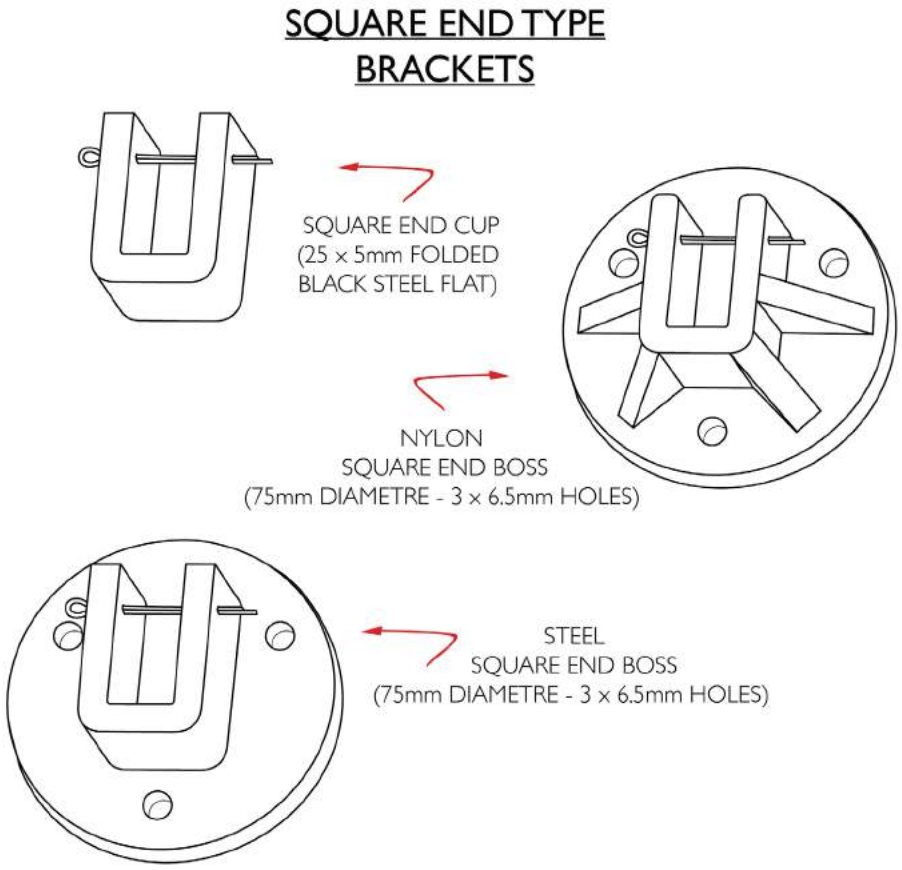

Figure 2.0

Rear mounted shutters have a sprung roller to allow for easy operation. The end of the roller's 20mm axle is squared off and slots into the square end cup or boss bracket system (See Figure 2.0), that is fitted to the tool box framework or walls. A split pin is fitted above the roller's axle for safety after the roller is positioned into the brackets.

The roller will be supplied seperate from the shutter curtain and is partially pretensioned. Once the roller is installed, the curtain is attached and the pretension pin is removed allowing the curtain to roll up around the roller. Be sure that the curtain is central to the opening and rolls up straight. The shutter may still need additional tension. Ensure that the brackets are fitted low enough to accomodate turning the whole shutter around the stationary roller axle.

A fixing plate will be required at the top of the toolbox to take the nylon corners and top track. Of course, the tracks on either side need to run parallel with each other throughout the toolbox.

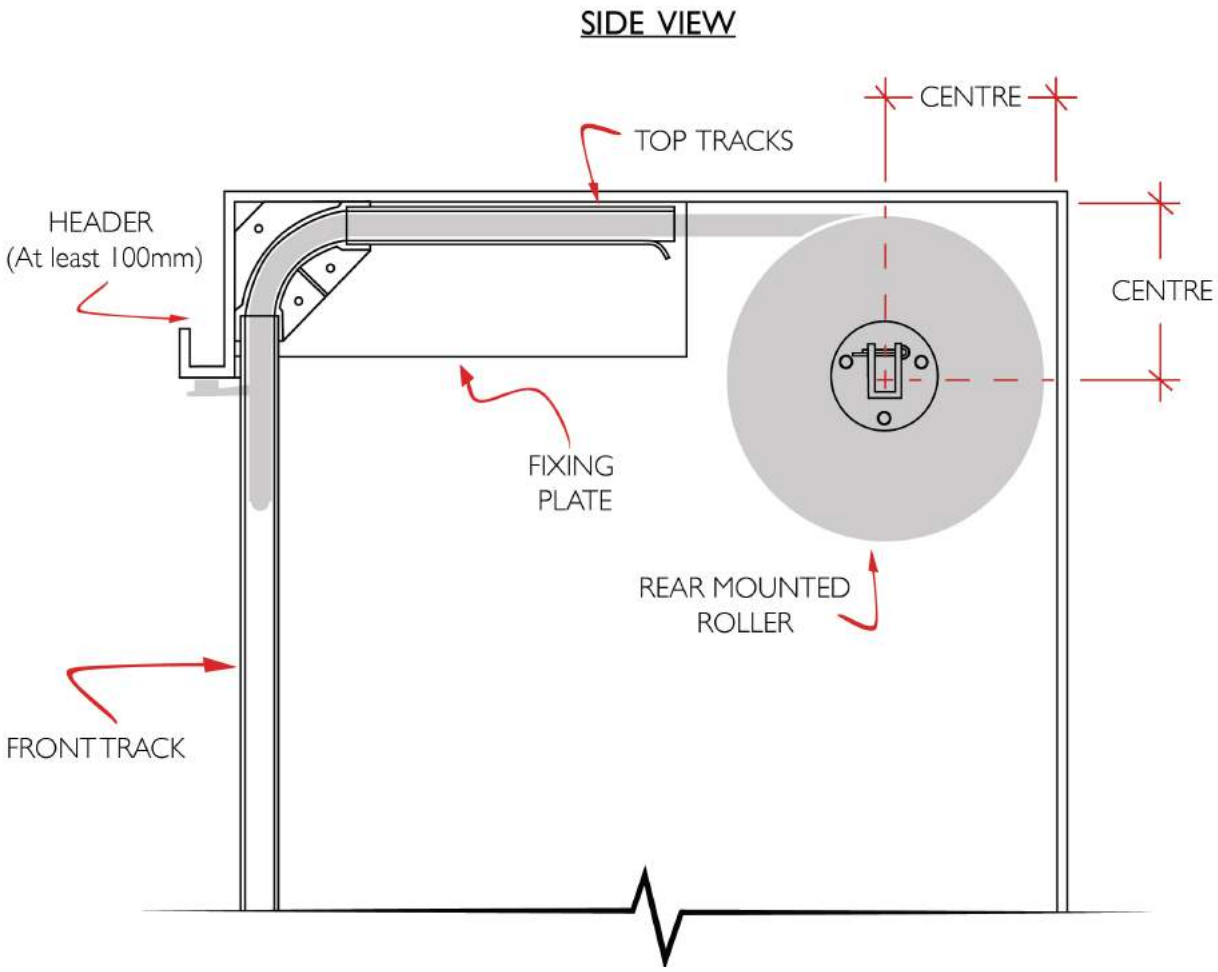

Figure 3.0

Be sure to grip the shutter tight whilst tensioning. Tension may be lost as well as damage sustained if the shutter is let go at this stage. Once tension feels correct, the curtain can then be pulled into the top track. The bottom rail is then fitted, followed by the front tracks.

PLEASE NOTE: When the shutter is in the fully opened position, the bottom rail will sit under the header subtracting 70mm from the daylight opening height on all types of bottom rails excluding the barlock bottom rail, which will subtract 130mm from the daylight opening height.

This type of shutter can be fitted with several different types of locking systems. The standard locking type for rear mounted shutters is the Chrome T-Handle.

A 100mm header panel is required to cover the nylon corners and travel curve of the shutter as it transitions from vertical to horizontal so that it can head back toward the roller (See Figure 3.0).

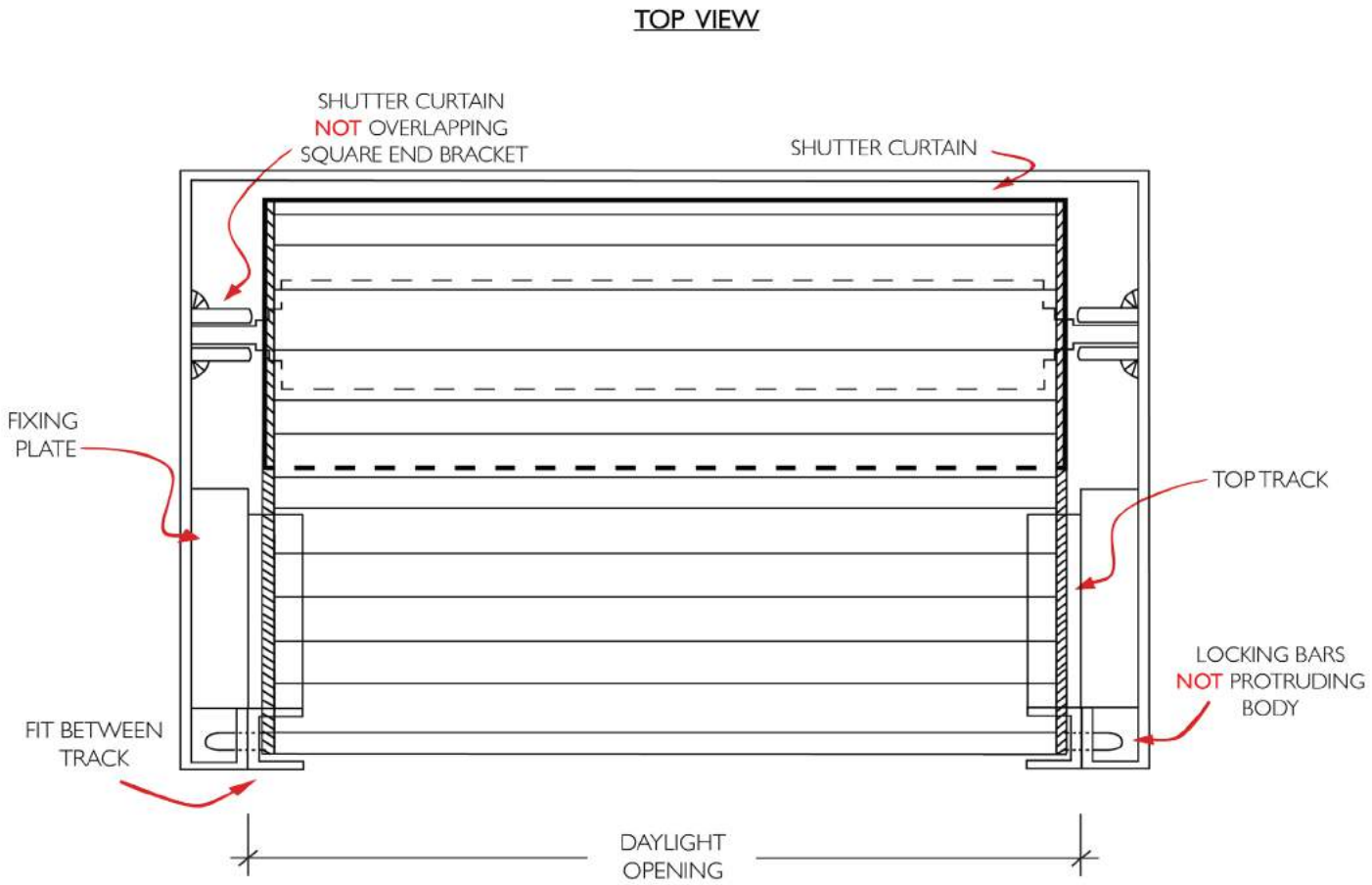

Figure 4.0

An RHS frame or a toolbox with side room foldings is used so that locking bars can project through the tracks into the hidden cavity (See Figure 4.0).

The tracks of the shutter usually **'FIT BETWEEN'** the daylight opening width. Using this method is the simplest option and prevents any mis-calculations. This means that on each side, the tracks project into the opening by the amount dependant on the size of tracks supplied.

Standard track size is 25mm. This makes the final 'between tracks opening' size 50mm smaller than the daylight opening once tracks are installed to both sides. The 'FIT BETWEEN' method keeps the shutter all the way to the edge of the vehicle, making a weather step easy to achieve as well as having the option to use several types of locking systems including the centre clamp lock or quick release barlock.

The weather prevention system should be built into the vehicle's bodywork so that any excess water run off that funnels down through the tracks, then makes it's way to the outside of the vehicle. This can be achieved as a small step in a pantech or an angled or stepped sill in a toolbox.

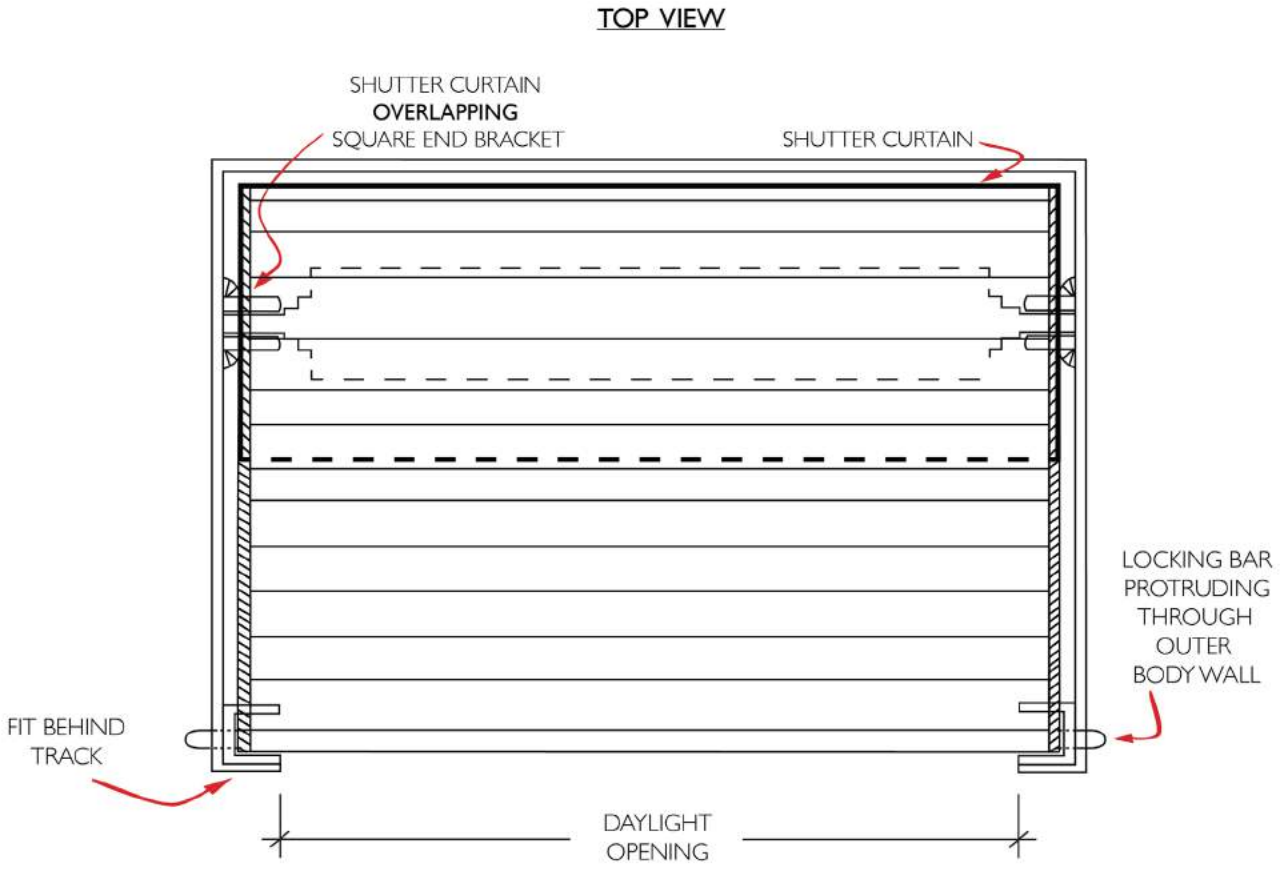

Figure 5.0

The **'FIT BEHIND'** method is not recommended on vehicle shutters. If there was zero side room and a locking system with bars was used, the locking bars would throw sideways passing through the track and side walls of the vehicle body. The ends of the locking bars would be visible from the outside of the toolbox or vehicle body (See Figure 5.0).

So the side fold would need to be extended to create a cavity behind the tracks. However, this method also prevents ease of track fixing as the only method available would be to weld the track directly on to the rear of the toolbox fold.

When using an RHS frame together with the 'FIT BEHIND' installation method, a weather step is harder to achieve as the shutter will be sitting further into the vehicle body and a centre clamp lock or bar lock system cannot be used easily.

REAR MOUNTED ROLLING TYPE SHUTTER INSTALLATION WITH SQUARE END AXLE SET UP.

PLEASE READ CAREFULLY BEFORE ATTEMPTING INSTALLATION

1. CENTRE

A safe centre measurement to use on a rear mounted shutter with a daylight opening of 1500mm or less is 120mm. If maximum room is necessary, then it is recommended to set the shutter product out on a bench that has protection to prevent curtain damage. Attach the roller to the curtain and roll up making sure to keep the roll tight and straight. Measure the centre of the supplied shutter from the middle of the axle to the outside of the bottom slat clip. You will need to add another 5-10mm to this measurement for clearance. Mark the measurement down from the ceiling of the vehicle body and in from the rear wall on each side of the opening (See Figure 3.0).

2. BRACKET INSTALLATION

USING NYLON OR STEEL SQUARE END BOSS BRACKETS:
Both types of boss brackets have a centre hole so that they can be aligned with your centre measurent previously marked out. Position the bracket and mark out the holes using the boss bracket as a template. The boss bracket is situated with the slot opening to the top. Drill out holes to suit . Using strong rivets or cuphead bolts, attach the bracket to the side wall or framework of the tool box (See Figure 2.0 & 3.0).

USING STEEL SQUARE END CUP BRACKETS:
Weld the brackets so that the bottom of the cup is 15mm lower than the centre measurement. This is half the thickness of the 20mm axle plus the 5mm thickness of the steel cup. Be sure to position the cup equally on each side of the vertical centre measurement line (See Figure 6.0). The position of the split pin should be away from the wall.

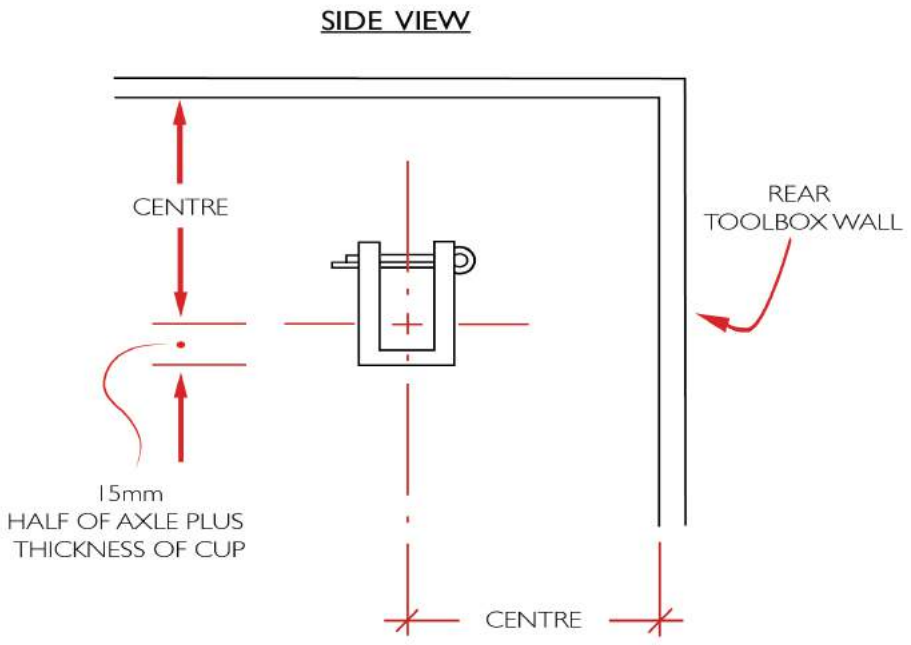

Figure 6.0

3. LIFTING THE ROLLER INTO POSITION

When lifting the roller into position, pay attention to the labels attached. If a roller is installed the incorrect way around, the spring will not work. Pay attention to the position of the pre-tension pin. Install the roller with the pin facing you. This will make it easy to release later. After placing the roller into position, install the provided split pins above the axle for safety.

4. NYLON CORNERS AND TOP TRACKS

When using standard aluminium or standard steel 25mm tracks, the two nylon corners above the opening can be installed hard up against the rear of the header and ceiling of the box.

Please note that if rubber sealed tracks have been provided, a 5mm gap is needed between the corners and the header above the opening to allow for the depth of the rubber seal. These corners can still be pushed hard up to the ceiling (See Figure 7.0).

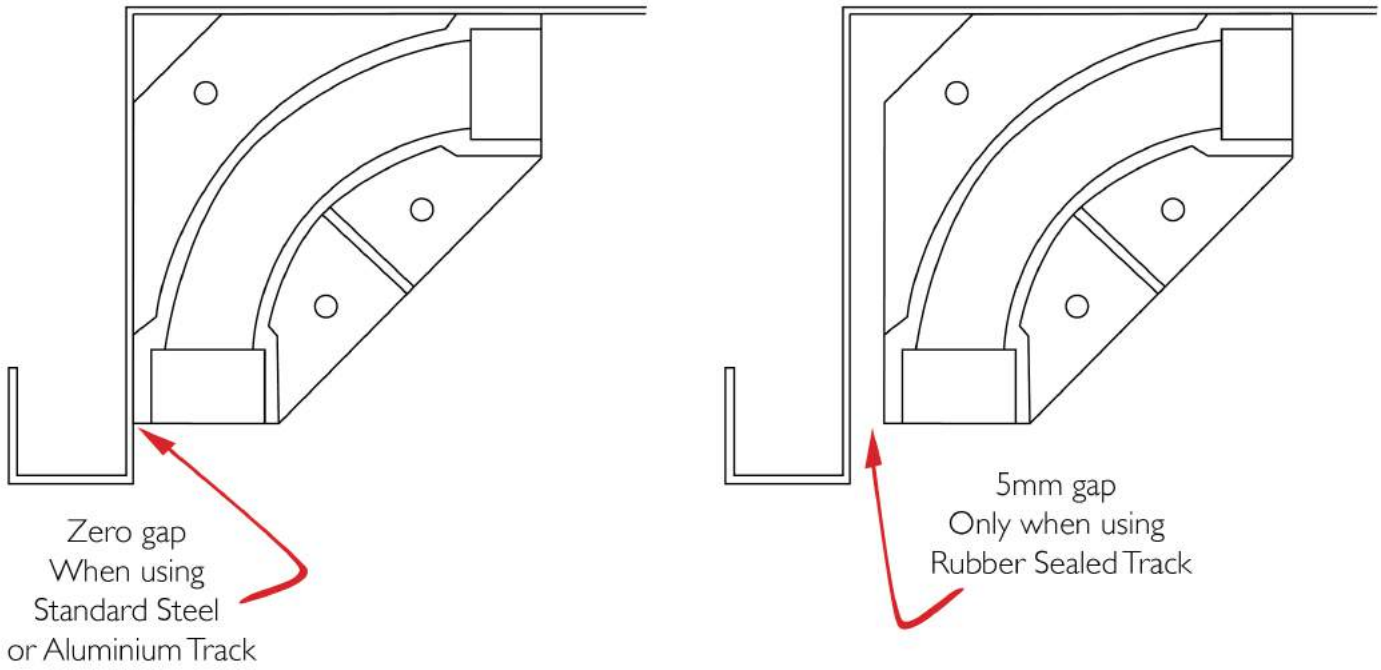

Figure 7.0

After the nylon corners are installed, cut the top track to the desired length, making sure that it will not interfere with the roll of the shutter's curtain. Note that the track will press firmly into the 15mm socket space built into the corner. Before fitting along the ceiling, a curl must be cut into the end nearest to the roller (See Figure 8.0). The top tracks may be welded into position or drill and countersink holes for screws/rivets within the track to hold it to the fixing plate of the toolbox.

You can also at this stage, cut and drill the front tracks. Again, the track is pressed into the 15mm corner socket so you must allow for this in the overall length of the track.

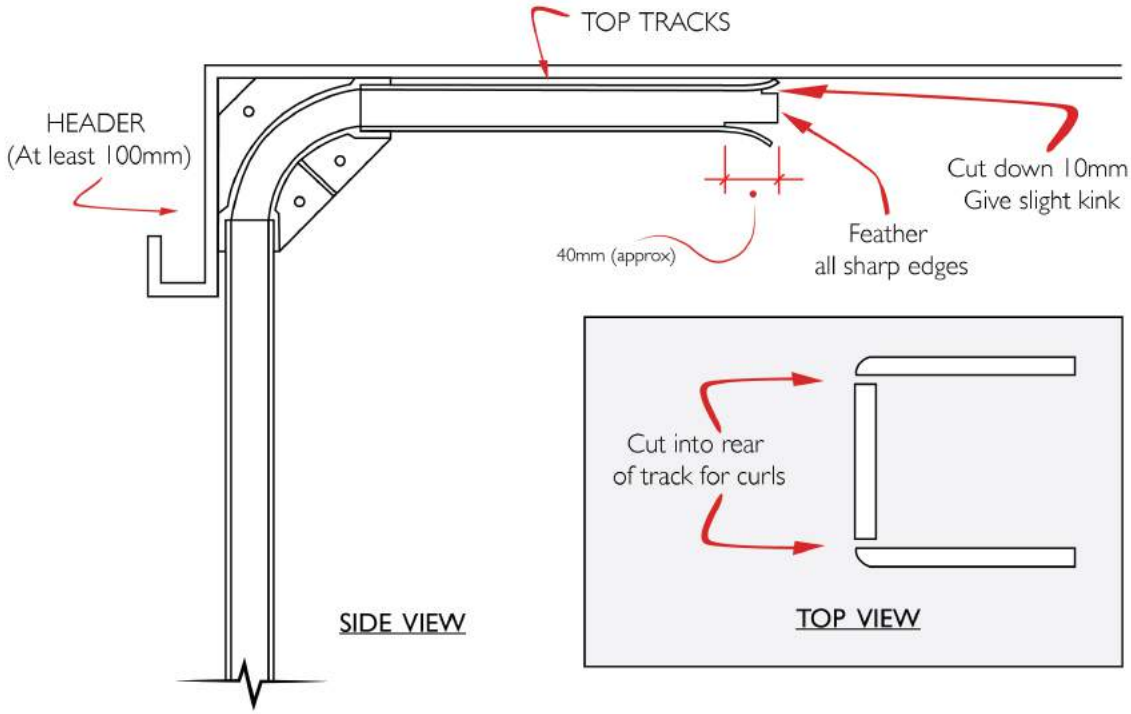

Figure 8.0

If drilling and counter-sinking fixing holes into the tracks, you must position them so as not to interfere with locking bar holes at the bottom and also where the bottom rail will sit at the top when the shutter is in the fully open position. Do not fit front tracks just yet.

5. **ATTACHING THE CURTAIN AND TENSIONING THE SHUTTER**

Place the wrapped up curtain diectly under the roller, making sure that it is facing the correct way. cut open the cardboard and plastic wrapping. The curtain will have two joining sections connected to the top slat which need to be attached to the joining sections situated on the roller. Once attached, it is recommended to crimp the ends of the joining sections so that they cannot slip loose once the truck is driving.

Whilst holding the shutter curtain tight, pull it slightly in the downward direction. The pre-tension pin can now be released and you can slowly let the shutter roll upward. You will be able to feel if the shutter needs any more tension. If it feels weak or wants to fall, add more tension by turning the whole shutter in a downward direction (See Figure 9.0).

WARNING: DO NOT LET GO OF THE TENSIONED SHUTTER AS IT WILL TAKE OFF AND UNWIND UNCONTROLLABLY CAUSING DAMAGE TO ITSELF AND THE VEHICLE AND POSSIBLY HARMING THE INSTALLER.

Make sure when rolling the shutter up, that the curtain is centred to the opening and running straight. pull the curtain into the top track and through the corners. With part of the curtain now hanging free, slide on the bottom rail which was supplied seperately. If the tension now feels weak, slide off the bottom rail and apply more tension. If the tension still feels correct, then secure the bottom rail by sliding the supplied nylon clip into the grooves on the rear of the first slat. Use the 4mm rivet to hold the clip in place.

Pulling the shutter downward, it should feel as if it wants to go back to the header. When nearing the middle of the opening height, it should want to stay stationary. When pulled all the way to the bottom, the shutter should want to lift slightly by itself.

The shutter should never want to fall. This would mean that the shutter has been under-tensioned. Add another turn of tension. The shutter tension should also not be too strong either, wanting to take off toward the ceiling of the vehicle extremely fast. This would be over-tensioned and a turn may need to be taken off.

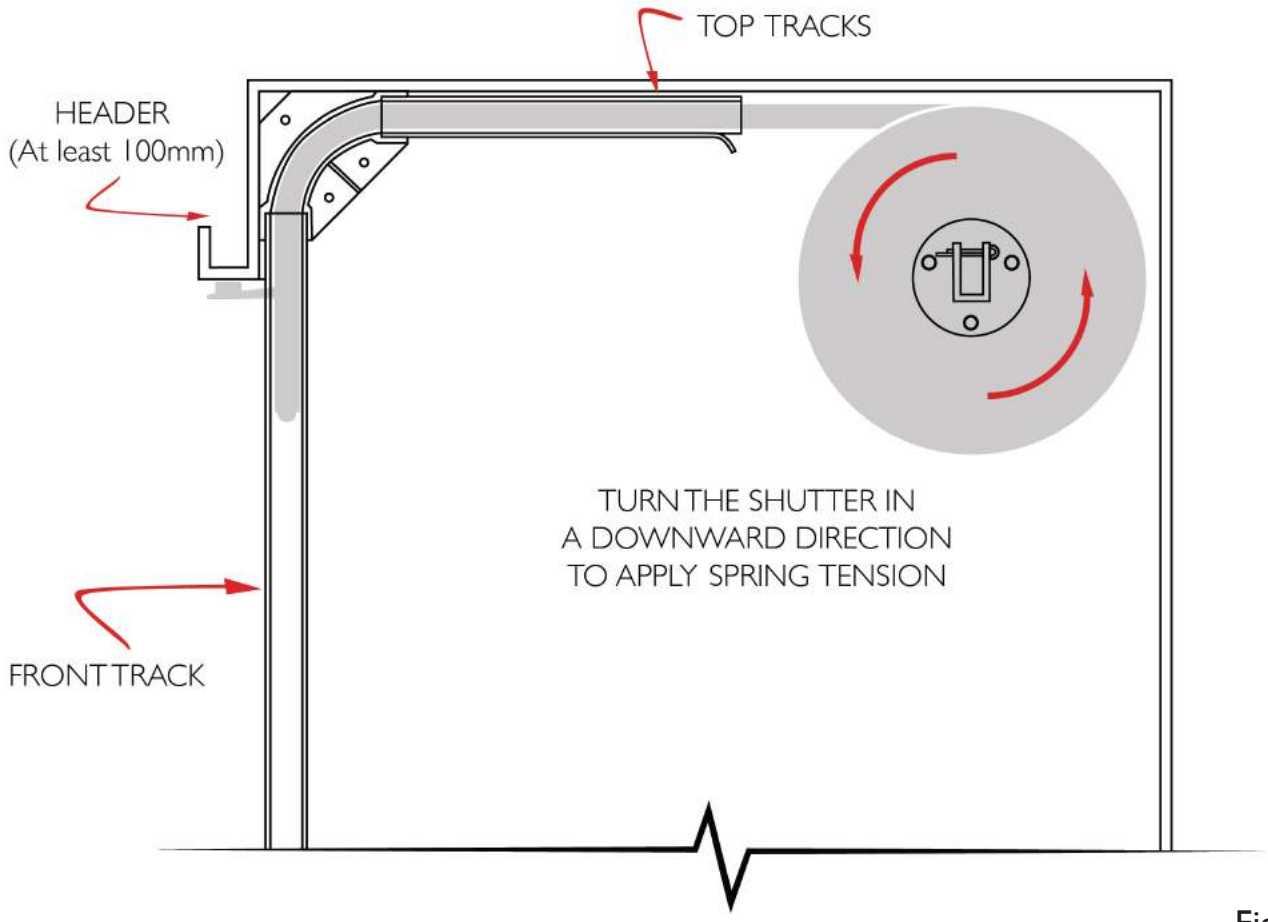

Figure 9.0

6. **FITTING FRONT TRACKS AND COMMISSIONING LOCK**

The front tracks can now be welded, rivetted or screwed to the toolbox. Even if the top tracks are welded into place, it is recommended to attach the front tracks with rivets or screws so that any repairs necessary in the future can be carried out easily without cutting into welds.

For T-handle, Flush lock or Bar lock bottom rails, you will need to open holes through the tracks and folds of the toolbox in order for these to move into the locked position. Drill the holes as low as possible so that the shutter does not jump up and down when it is in the locked position whilst driving. Excessive wear is the result of locking holes that are drilled too high.

With the Quick Release Bar Lock, the supplied Keepers must be secured in the shutters closed position next to the opening.

For these and all other locking system installations, please see the "Locking Systems" downloadable PDF on our web site.

Note that lubricants are not required for the shutter to operate. However, WD40 spray or equivalent is recommended for smoothness. It will not attract unwanted dirt and grime and will help ease unwanted friction.

9. **ANTI-RATTLE STRIP**

If anti-rattle strip has been supplied for standard tracks, simply cut it to the 'daylight opening height' and push it onto the front leg of the track with the pile facing the shutter curtain (See Figure 10.0). An adhesive within the push on clip channel of the anti-rattle is not necessary, however, a small amount every few hundred millimetres is recommended for longevity.

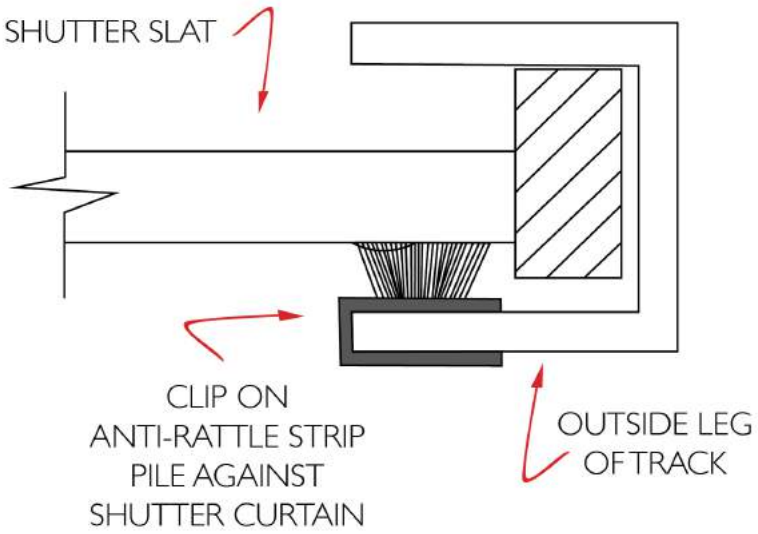

Figure 10.0