

2019 GENTLE ROLLER OWNER'S MANUAL PART 2

A SIMPLE GUIDE TO USING THE GENTLE ROLLER

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A SIMPLE GUIDE TO USING THE GENTLE ROLLER

1 INTRODUCTION

Like most people, I never read instruction books. Sometimes I get lucky and I can work through the mysteries of my new purchase without help. Sometimes I'm frustrated when things don't work as expected or I discover six months later that there is a better way to do things.

Trust me when I tell you that avoidance of instructions is best left to the purchase of a new TV, or hair clippers, or fridge or toaster. These things are mostly intuitive. We've grown up with them and one is much like the other. However, The Gentle Roller is not an everyday item.

Simply transferring your manual rolling technique onto the Gentle Roller is unlikely to be a productive approach as the Gentle Roller has its own dynamics. It has functions and functionality that you will not have seen before (even if you've owned a different felt roller in the past). Users need to become familiar with the way the Gentle Roller works and how it can be manipulated to give the same or better results than manual rolling. This is equally true for the experienced or novice felt maker.

If you don't want to know all the intricacies of The Gentle Roller then don't read this document, just forge ahead with your felting ... it's possible ... and it's almost certain you will not get the best out of your Gentle Roller.

However, for the reasons stated above, we highly recommend that you take time to read this document and learn the ins, outs and nuances of your new Gentle Roller. Only then will you get the best results for your felting project.

I'll begin with a brief explanation of 4 key components that are regularly referred to before delving into the tips and tricks.

2 DRIVE ROLLER



The all-purpose (grey) or super-soft (green) drive roller carries your (pre-)felt materials. It is important when rolling that your bundle is rolled firmly onto the drive roller.

It comes in two forms;

All-purpose which will comfortably make any type of felt.

Super-Soft which is ideal for finer nuno felts with spongier feel and its slightly larger diameter.

3 IDLE ROLLER



The (burgundy/red) side loading idle rollers are held in place by (cream) **pivot hooks**. They should be loaded into position **before** The Gentle Roller is turned on. Lifting the pivot hook upward makes it easier to engage the idle roller in place.

The pin on the idle roller should be placed in the notch on the pivot hook that is closest to the drive roller without stressing or bending the idle roller.

Without felt, both Idle Rollers should be parallel to the Drive Roller and close to, if not touching, the drive roller.

If the Idle Rollers do not fully touch the Drive Roller it is not a problem as the gap will be occupied when you roll material onto the Drive Roller.

If there are apparent high spots in areas of the PU roller cover, these can be wriggled out. If the roller seams bowed, they contain pvc internal tubing which you can try and flex straight.

If there are gaps between sections of your drive or idle rollers, these are acceptable and can be up to 2mm wide without concern (the pattern allows for 2-5mm gaps between high spots)

The centre of your idle rollers should be level with or just below the centre of your drive roller. In most cases you will find the first locator of the pivot hook to be appropriate.

If you have a large bundle you may need to use the second or third locator of the pivot hook.

You can use 2 or 3 idle rollers. Two are used on the sides. The third idle roller can be placed into the top slots to rest on top of the felting bundle. The third roller should only be used if your bundle is of uniform thickness, centred on the roller and at least half as wide as the roller. If these three conditions are not met the top roller will be unbalanced and can result in more pressure at one end of the bundle than the other resulting in uneven felting or causing your work to migrate along the **drive roller**.

3.1 Squeaky Idle Rollers:

Can be easily fixed with a small squirt of soapy water where the pin rests and rotates in the pivot hook. You can use the water that you are using for wetting your felt.

4 LOCKING SLIDER



The curved locking slider is used to stop the drive roller from coming out of the (orange aluminum) **hex drive plate**.

Load the Drive Roller first. Make sure the locking slider is open. Place the hex end of the Drive Roller into the hex drive plate and simultaneously lower the pin into the slot at the right-hand end of the machine.

If the Drive Roller is too tight to fit into the locking piece at the right-hand side;

- ensure that the end panels of the roller are fully engaged.
- Ensure the gap between the hex drive plate and the end panel is no more than 2-3mm.
 - If more than 2-3mm ensure your hex drive plate is fully engaged. Loosen the control assemble slightly to help reduce the gap.

If each of the above does not ensure an easy fit of the drive roller into the locking piece, it is ok to file down the pin on the drive roller to ensure a comfortable fit. Ensure the pin is smooth after filing with no burrs or sharp points.

Close the curved locking slider. The Drive Roller should be horizontal.

5 HEX DRIVE PLATE – AND HOW TO REMOVE THE DRIVE ROLLER



When removing your drive roller or fulling drum, you may find it awkward to remove, or you may find that the hex drive plate comes out with the drive roller or fulling drum. It is not a problem if it drops out (although perhaps annoying) as it should be easy to put back if your motor housing is held tightly to the roller housing.

It is most likely to be your technique for removing the drive roller or fulling drum. Try removing it according to the following three actions till you get the hang of it;

- hold the drive roller at each end and push the drive roller to the left – this pushes the hex drive plate back into the motor housing if it has moved to the right by a few mm while rotating,
- pull the drive roller to the right – this disengages as much of the drive roller from the hex drive plate as possible,
- lift the RIGHT side only and the drive roller should come out.

If you practice it a few times it will become a fluid motion and you should have more luck and not pull the hex drive out.

HOW TO ROLL ON THE GENTLE ROLLER

There are no right or wrong answers to felting. Every felt maker is different in the materials they use, their techniques and processes and their desired outcome.

However, when introducing a new device or tool into your felting world it is a good idea to start with the suggested method, learn how the device works, and when you understand it you can start to make adjustments to suit your personal style.

It is with this in mind that we have compiled a series of tips and tricks.

No doubt you will learn your own tricks over time – we always say, “the Gentle Roller is as nuanced as you are as a felt maker”.

For now, we suggest that you follow our guidelines until you become comfortable with The Gentle Roller and can begin to experiment for yourself.

6 HOW TO ROLL YOUR BUNDLE

Always work between two plastic sheets

Place plastic painter’s drop sheet under your work (0.7mm to 1.2mm thick). (If you lay-up on bubble wrap put the plastic drop sheet on top of the bubble wrap and place your materials onto the plastic sheet.)

Wet down your work. If using thick or heavy layers of fibres, allow your work to sit up to ½ hour so the fibres absorb the water before continuing.

Place another plastic sheet on top of your work.

Rub down your work to “settle” the materials. Use soapy water on the top of the drop sheet to allow your hands to move smoothly (you can use rubber gloves or put your hand in a plastic bag)

This effectively sandwiches your work between plastic drop sheets. It helps to stop your materials from moving and you will find that it is easier to flip your work if necessary.

Width: The plastic sheets should be around 100mm (4 inches) wider than your materials. It can be bigger, but it will need additional rubber bands to hold it in place on the drive roller.

Length: The plastic sheets should be around 100mm (4 inches) longer than your material. It can be longer – up to 500mm (18 inches) but you will probably end up trimming it during the rolling process.

When you roll your garment, as you reach the end of the fabric there needs to be sufficient plastic to cover two more circumferences of the drive roller. This protects the end of your item from ‘scalloping’ – being pushed backwards as it impacts the idle roller.

If your plastic sheet is cut the recommended 100mm (4 inches) longer than your material, you should also have available a separate strip of plastic sheeting up to 500mm (18 inches) long which is used as the final wrap around your bundle. This additional piece of plastic should always be used when doing special folds.

Always take up the material with the hex end of the drive roller on your left hand side. It is then on the correct side for engaging in the hex drive, and if using the default roller settings, it ensures your bundle remains firmly on the drive roller.

6.1 HOOK AND LOOP ELASTICS STRAPS / ELASTIC BANDS

The Hook and loop elastic straps are ideal for holding heavier items but they are not recommended for light-weight items such as scarves. We recommend that every felt maker has a bag of miscellaneous rubber/elastic bands.

When doing light weight felt, use an elastic band that is loose enough to just secure your bundle on the drive roller. At least three elastic bands should be used - one in the middle and one at each end of your bundle. As a rule of thumb place the rubber bands 200mm/8 inches apart.

In addition, use a tighter elastic band to secure the surplus plastic at each end of the bundle.

Note: if you don't secure the surplus plastic it can unravel and become entangled on your idle rollers and jam The Gentle Roller and damage your felt.

6.2 SPEED SETTINGS

When felting the speed defaults to 50%. Usually this can be clicked up to 100% within 10 or 15 revolutions.

If you were felting a particularly large or tricky piece and you were concerned it might come loose or migrate to the left or right of the roller you may find that 75% speed is required initially until you are confident it is stable.

7 CHECK YOUR WORK REGULARLY

Check your work regularly particularly when learning or attempting a new method.

7.1 CYCLES

The default setting on The Gentle Roller is 500 Cycles. If you are doing a short length piece or a piece with a small surface area (1m x 1m – 3ft x 3ft) this is probably ok.

If you are doing a long piece for example a long scarf it would be advantageous to change your default to 250 cycles. Joni always begins her projects changing the material on the roller every 250 cycles, even if not inspecting the project on each occasion. This will give you more opportunity to try special folds to even out your felting and not felt one area too soon.

Keep your material wet, as the rollers tend to push the water out.

If your bundle is pre-felting too much use fewer cycles between checking and ensure you are adjusting the material on the outside of the roller – see Item 13 – Special Fold.

7.2 FORWARD AND REVERSE REVOLUTIONS.

The default setting is 1.75 : 2.25 ie 1.75 revolutions forward and 2.25 revolutions backwards.

Shorter cycles setting like 1 : 1 generates more agitation as it is changing direction more often.

Longer cycle setting like 3 : 3 is good for settling a tricky piece or for felting a settled piece that requires a reasonable amount of rolling.

7.3 WHAT IS THE BEST OR RECOMMENDED SETTING AND WHY?

The default setting is where you should begin and practice from there what works best in your circumstances/

Avoid setting forward and reverse exactly the same ie 1:1 or 2:2 or 3:3, as the idle rollers (in theory) will contact the felt bundle in exactly the same place on each cycle. The 0.25 cycle offset ensures that the idle rollers do not contact exactly the same place, instead the bundle will slowly rotate backwards on each repetition ensuring more variation in the contact points.

If you roll your bundle with the plastic hex on the left hand side then always keep the forward revolution set slightly lower than the reverse revolution, ie 2.75:3.00, 1.25:1.50 etc as this will keep your bundle tighter on the roller.

8 THE FELT ON THE OUTSIDE OF THE DRIVE ROLLER FELTS QUICKEST

The Gentle Roller will tend to felt the outer layers quicker than the inner layers (this is true of any form of rolling).

If you take up a long piece - more than 1.5mt (five feet) long – and continuously work if from one end and then the other, you may find that each end has felted more than the centre area.

It is important that you move the material around so that different areas are exposed to the idle rollers and all areas of the material get a reasonable amount of felting “work”.

9 ROLLING EFFICIENCY

Felting occurs due to agitation of the barbed fibres (usually wool, but it could be hair or other barbed fibres). Good felting occurs due to controlled agitation of the fibres. Your goal as a felt maker is to control the agitation to create even felt, or particular levels of felting as, and where, you require it.

Rolling efficiency is creating the style of felt you require in the minimum amount of time (or minimum number of cycles).

The Gentle Roller, as supplied, is a compromise of factors – costs, weight, efficiency - that we believe will work in most circumstances (it hasn't failed us

yet). Efficiency has always been the lowest priority because if your felt needs more work, just put it on for more rolls.

But, if time or efficiency is an issue, there are several critical ways you can control the rolling efficiency with small adjustments to your felting or rollers.

9.1 WOOL UP OR WOOL DOWN?

If making a nuno garment with wool on one side of the carrier fabric **always have the wool side down** when you roll it up so that it is on the outside of the drive roller and in contact with the idle rollers.

Wool side down mean the wool is facing the orange idle roller and the pattern shape. It appears that it is easier to push the fibre through the carrier fabric as opposed to the other way where you would be pushing the carrier fabric onto the wool.

Both work, but the first option is faster.

We do not suggest you lay you wool first although it is possible. All our videos we lay fabric first. Watch: <https://gentleroller.com.au/pages/fine-nuno-felts> last video on the page, just the first 3 minutes – especially 2:47, it's a perfect example of the correct technique.

The steps are:

- Plastic sheet
- Fabric
- Wool
- Plastic sheet
- (rub)
- Flip (now your wool side is down)

If it is light and thin you can just flip it – if it is sandwiched well, it won't go anywhere.

If it is heavier/larger or you are on your own, roll in onto a pool noodle and unroll it face down (we do this at <https://gentleroller.com.au/pages/copy-of-exclusive-1-latest-content> tutorial video 1 - time mark 2:25)

9.2 THIRD IDLE ROLLER

Out of habit we always use 2 rollers - we know from experience how many rolls we might need for a certain outcome. 3 will technically felt slightly faster as you

have 3 contact points instead of 2. If you want to felt a little faster use 3 rollers and that will become your 'habit' and you'll gain your own level of expertise.

HOWEVER,

- 1.1.1 don't use the top roller if your bundle is uneven (fatter at one end than the other) as it will try and push the bundle one way.
- 1.1.2 don't use the top roller if the bundle is small or if the bundle is not centred on the roller. In these circumstances the top roller will tend to tip one way and will felt one edge (more contact) quicker than the other edge (less contact)

9.3 ADJUSTING THE WEIGHT OF THE IDLE ROLLER

Having a heavier idle roller will create greater deflection of your felt where the idle and drive rollers meet and result in greater agitation of the materials and 'quicker' felting. You need to be cautious not to create too much agitation or you may find your wool or embellishments moving before they have had time to felt together.

The easiest way to increase the weight of your idle roller is to fill them with water (or sand). There is a video in the Exclusive Owners section of the website showing you how you can perform a minor rework on your rollers to allow you to fill them with water.

9.4 VERY THIN PROJECTS – TWO OPTIONS

9.4.1 BUBBLE WRAP

If your project is very thin you may find there is insufficient contact between the drive roller and the idle rollers and the work is not felting properly.

There are two short term solutions to address this issue;

- (1) Bubble wrap or 5mm very soft EPDM flexible foam on the drive roller: Cut a suitable sized piece of bubble wrap or very soft EPDM flexible foam sheet to wrap around your drive roller. Ensure there is no gap, and no overlap in the bubble wrap/foam sheet. It must be smooth and continuous. Attach it securely to the drive roller with string or elastic bands.

The extra thickness of the drive roller created by the bubble wrap/very soft EPD foam should ensure you get suitable contact between your bundle and the idle rollers.

(2) Place your work on a layer of bubble wrap and take it all up on the drive roller.

Follow other instructions as per normal.

9.4.2 SUPER-SOFT ROLLER

The super-soft drive roller is the ideal solution for fine nuno felted items. The squishiness of the roller compound is just sufficient that in the rolling process the fibres are agitated together as the rollers work back and forth and the drive roller 'deforms' under the weight of the idle rollers, thus creating agitation.

The super-soft drive roller works best using weighted idle rollers which increase the deflection of the squidgy super-soft material as the idle rollers move across it. The roller is also a slightly larger diameter than the all-purpose drive roller to ensure better contact with the idle rollers.

In addition the Super-soft roller is ideal for heavily textured items as the soft roller indents easily accommodating the lumps and bumps in your item.

10 MACHINE SETTINGS

10.1 THE IMPACT OF FWD/REV CYCLES ON MACHINE RUN TIME

Shown below is a timing chart with 3 different setting options. The options indicate how the number of rotations effects the overall felting time.

Total Cycles	500		500		500	
Fwd Cycles	1		2		3	
Rev Cycles	1		2		3	
Machine Pause	0.5		0.5		0.5	
	Qty	Time Mins	Qty	Time Mins	Qty	Time Mins
No. Fwd Cycles	250	2.50	250	2.50	250	2.50
No. Rev Cycles	250	2.50	250	2.50	250	2.50
Number Pauses	500	4.17	250	2.08	167	1.39
Total Time Required	9.17		7.08		6.39	
	143%		111%		100%	

A change from 1:1 to 3:3 can reduce the total felting time by 43%

10.2 DELAY TIME

There is default option called “machine delay time”. This is how long The Gentle Roller stays stationary between changing directions.

The default machine delay time is 0.5 seconds. This means that The Gentle Roller rotates one way, pauses 0.5 seconds, then rotates the other way.

If you are doing a heavy piece, it is likely to generate its own rotational momentum and it needs time to stop rotating before the change of direction. For heavy pieces this is when 0.5 seconds is most likely to be required.

If you are doing small, thin or light pieces you can comfortably change the delay to as low as 0.2 seconds. This will make your felting time go quicker and save time in the long run.

10.3 THE IMPACT OF FWD/REV CYCLES ON MACHINE RUN TIME

Shown below is a timing chart with 3 different setting options. The options indicate how the number of rotations effects the overall felting time.

Total Cycles	500		500		500	
Fwd Cycles	1		2		3	
Rev Cycles	1		2		3	
Machine Pause	0.5		0.5		0.5	
	Qty	Time Mins	Qty	Time Mins	Qty	Time Mins
No. Fwd Cycles	250	2.50	250	2.50	250	2.50
No. Rev Cycles	250	2.50	250	2.50	250	2.50
Number Pauses	500	4.17	250	2.08	167	1.39
Total Time Required	9.17		7.08		6.39	
	143%		111%		100%	

A change from 1:1 to 3:3 can reduce the total felting time by 43%

10.4 THE IMPACT OF DELAY TIME ON MACHINE RUN TIME

Shown below is a timing chart with 6 different setting options. The options indicate how the number of rotations and delay time effects the overall felting time.

Total Cycles	500	500	500			
Fwd Cycles	1	2	3			
Rev Cycles	1	2	3			
Machine Pause	0.5	0.5	0.5			
	Qty	Time Mins	Qty	Time Mins	Qty	Time Mins
No. Fwd Cycles	250	2.50	250	2.50	250	2.50
No. Rev Cycles	250	2.50	250	2.50	250	2.50
Number Pauses	500	4.17	250	2.08	167	1.39
Total Time Required	9.17		7.08		6.39	
	165%		128%		115%	

Total Cycles	500	500	500			
Fwd Cycles	1	2	3			
Rev Cycles	1	2	3			
Machine Pause	0.2	0.2	0.2			
	Qty	Time Mins	Qty	Time Mins	Qty	Time Mins
No. Fwd Cycles	250	2.50	250	2.50	250	2.50
No. Rev Cycles	250	2.50	250	2.50	250	2.50
Number Pauses	500	1.67	250	0.83	167	0.56
Total Time Required	6.67		5.83		5.56	
	120%		105%		100%	

If running 3:3 cycles, a change in the delay time from 0.5 seconds to 0.2 seconds will reduce the overall felting time by 15%.

The overall felting time can be affected by as much as 65% through a combination of changing the cycle count and the delay time.

Note: If you change the delay time setting, it will automatically revert back to 0.5 seconds when you power off the control panel. This is to ensure that changing the delay time is a conscious decision each time you set up and only used for lighter bundles.

11 HOW TO INCREASE YOUR FELTING EFFICIENCY BY “100%”

The Benefits of Using a Second Drive Roller by Joni Cornell

I often contemplate that the reality that using The Gentle Roller has neither made me a more prolific nor a faster felt maker. The Gentle Roller was never intended to produce faster felt. It was intended to replace manual rolling and, in that regards, it suits me fine. But I know that there are some who think or feel that you could be working faster particularly when you’re not doing the rolling yourself and time seems to be spent “waiting”. There are just so many cups of coffee you can have while The Gentle Roller is doing all that hard work for you ☺.

I am not usually having cups of coffee, or reading, as the GR advert suggests. And because the shed where I work is a long way from the rest of the house, I tend to just sit around waiting for the cycles to complete. Often, I use the time to daydream about future projects, draw or write, or informally do inventory of my fibres and fabrics.

Things changed when I started testing the super soft roller for Nuno Felt. I discovered that having more than one drive roller can change your production quite dramatically.

It helps for instance when I am laying a garment. As I don't use a resist but lay my pieces separately, I can now roll the front and back pieces concurrently. Having laid out the back and front pieces I can take each up on a separate drive roller (it's less difficult/heavy than folding back to back and trying to roll the whole piece at once). While one bundle is rolling, I can wet down, soap, inspect the other piece, then sandwiched in plastic, take it up on another drive roller. When the rolling cycle finishes for the other bundle, I can simply switch them over.

You can work this way with making multiple scarves at the one time, or with different parts of a garment. When I work with two drive rollers I'm no longer sitting around in a daydream (even though I consider this being creative too). I'm in constant motion inspecting, wetting, hand touching, preparing; and as I ready one piece, the rolling cycle of the other is just coming to an end (or it is waiting) and I swap and continue.

The Gentle Roller won't be rolling any faster, but you will find yourself working much more productively and efficiently (if that is your objective) and your "waiting" time will reduce dramatically.

Note: We are always looking to provide the clearest possible explanation for Gentle Roller users to get the best out of their machine. If you find spelling or grammar errors, or if you find any section in this document confusing please contact me, philip@gentleroller.com.au, and I will address your comment and update the booklet accordingly.