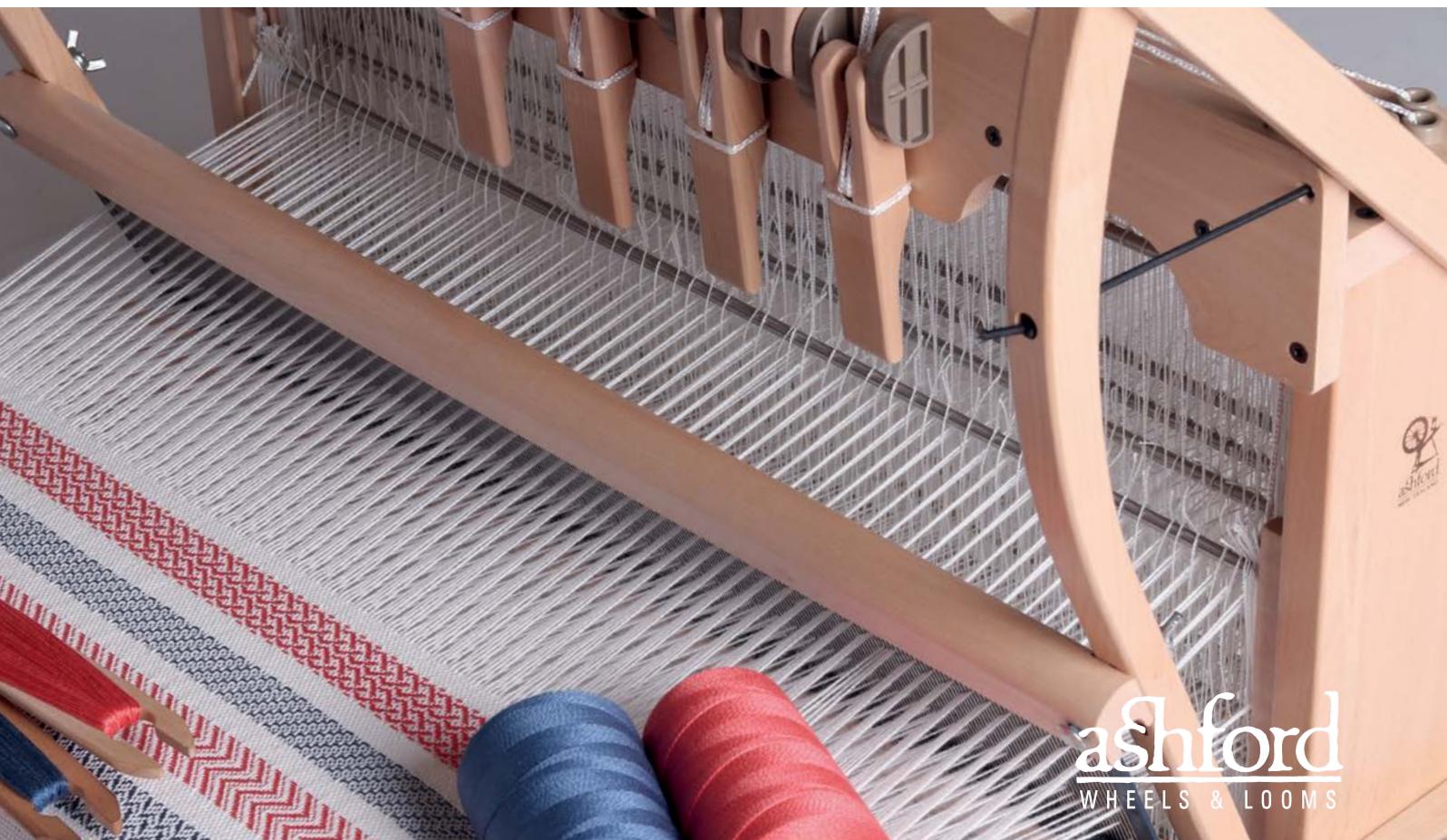


Learn to weave on the Table Loom



spinning | weaving | carding | felting | knitting | dyeing

Welcome to the wonderful world of weaving ...

Welcome to the wonderful world of weaving. You are starting an exciting journey of discovery and we know you will enjoy all the texture and colour, creativity and satisfaction that weaving will bring.

We make a range of table looms. The four and eight shaft looms are available 40, 60 or 80cm (16, 24 or 32in) wide. There is also a 16 shaft table loom 60cm (24in) wide.

This booklet shows our easy warping method and gives instructions for a first project. We used a 40cm (16in) table loom but the instructions apply to all our table looms.



*Four Shaft 60cm (24in)
pictured with optional stand
and treadle kit*

Eight Shaft 40cm (16in)



*Sixteen Shaft 60cm
(24in) pictured with
optional stand*

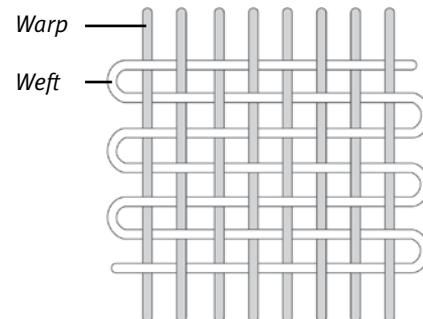
Glossary

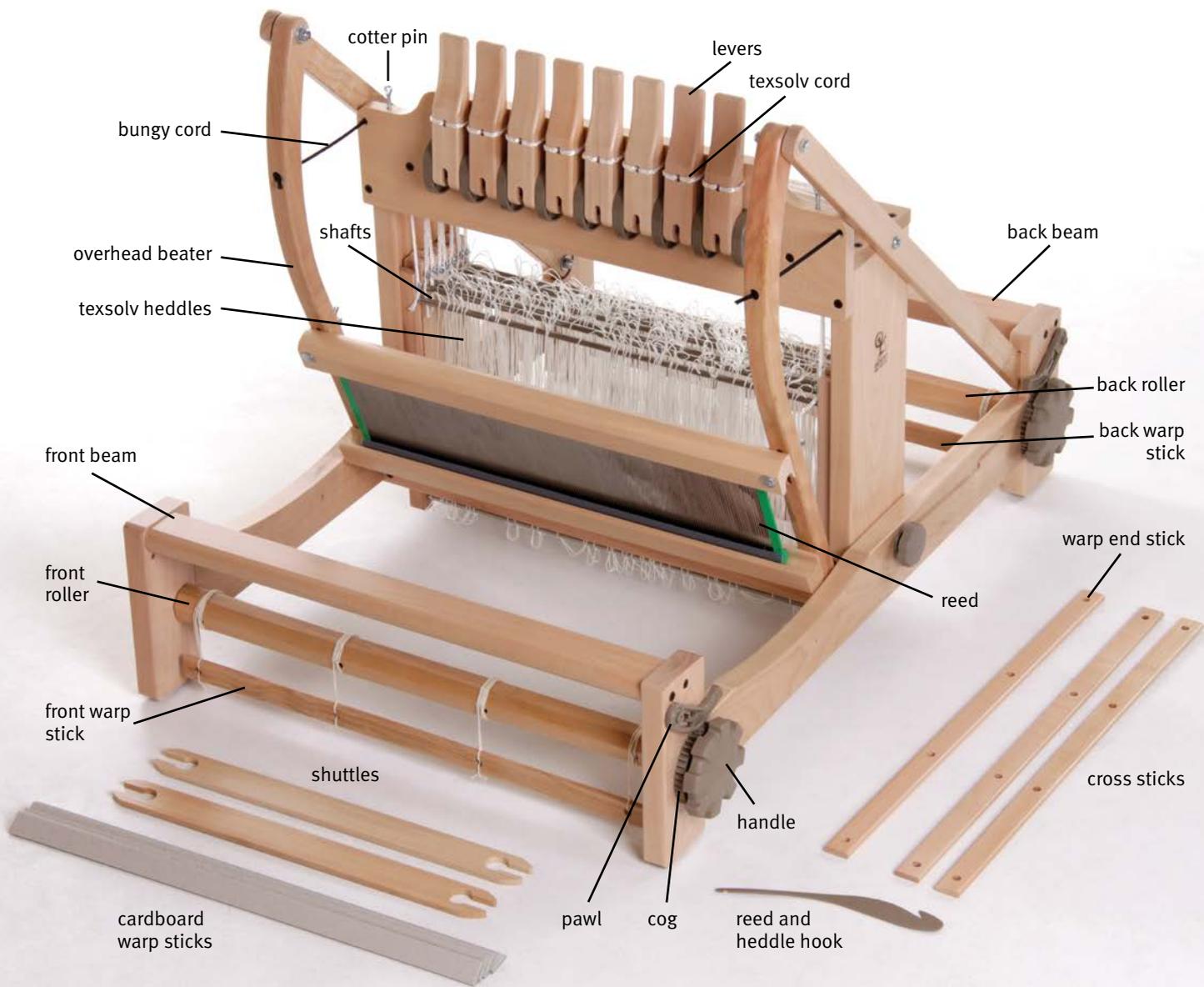
Before you begin your first project on the table loom, here is a glossary of weaving terms you will need to know to get started.

Beaming	Winding the warp under tension onto the back roller.
Beater	Frame holding the reed. Beats the weft thread into place.
Cross Sticks	Sticks used to keep the warp threads in the correct order while warping the loom.
Dent	Space in the reed.
Dpi	Dents per inch in the reed.
Draft	Instructions for threading and weaving.
Drawdown	Diagram of woven cloth resulting from the weaving draft.
Draw-in	Amount the fabric narrows while weaving.
End	One warp thread.
Epi	Ends per inch in the sett.
Heddle	Holder of a warp thread. One warp thread is threaded in a heddle.
Loom Waste	Length of warp that cannot be woven at the beginning and end of weaving.
Pick	Single weft row.
Raddle	Used to evenly spread the warp threads to the desired weaving width before beaming the warp.
Raddle Cross	Made at half-inch (13mm) intervals for counting the warp threads while winding the warp.
Reed	Frame holding thin metal strips set evenly apart called dents. Used to spread the warp to the desired weaving width.
Sett	The number of warp threads for each inch of weaving. A balanced plain weave (also called tabby) has the same number of warp and weft threads for each square of weaving. To find the sett, wind the warp

and weft around a ruler or yarn gauge for one inch (25mm). The number of times the warp yarn wraps around the ruler is the correct sett.

Shafts(Harnesses)	Frames which hold the heddles. Shaft one is the shaft closest (front) to the weaver.
Shed	Opening formed in the warp to allow the shuttle to pass.
Shuttle	Holds the weft yarn.
Sleying	Threading the warp ends through the reed.
Threading Cross	Made while winding the warp. Keeps the warp ends in the correct order for threading.
Warp	The lengthwise threads held under tension on the loom between the front and back roller.
Warping Frame	Wooden frame with pegs set in at regular intervals. Used for preparing the warp yarn.
Warping the Loom	The process of transferring the warp threads to the loom.
Weft	Passes over and under the warp threads to form the woven fabric.





THE LOOM

Reading the Draft for the dish towels.

Pattern drafts are made of four parts:

1. Threading draft
2. Shafts
3. Liftings
4. Drawdown

1. Threading Draft

This shows the order in which the warp is threaded through the heddle eyes. Threading drafts are read from right to left. For this project, the first warp thread will be threaded through the heddle on shaft one. Two pattern repeats are shown. The bracket above shows how many times to repeat each section.

2. Shafts

Show which shaft to use when threading and lifting.

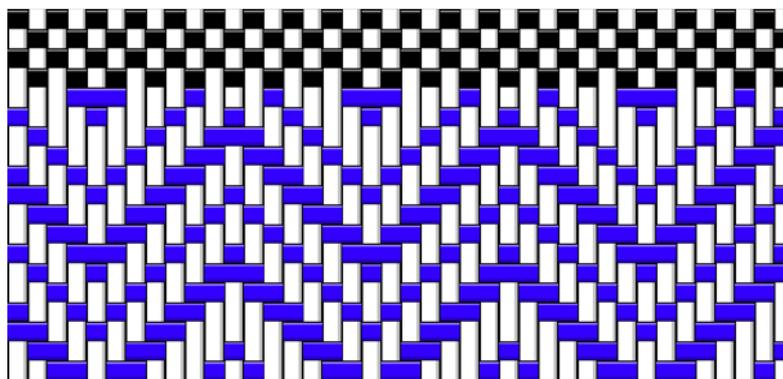
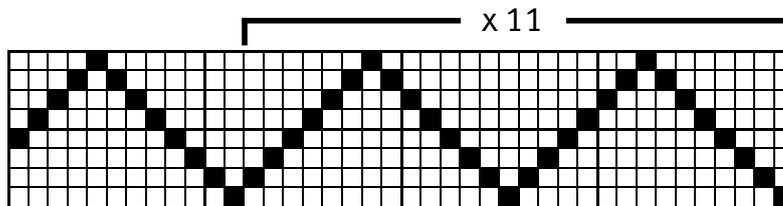
3. Liftings

This is the order the shafts will be lifted for each weft pick. For this project the first shafts lifted are one, three, five and seven by pushing levers one, three, five and seven down.

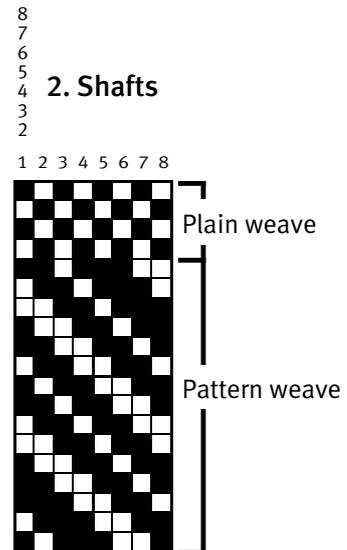
4. Drawdown

The diagram of the woven cloth produced by the threading and shaft liftings.

1. Threading Draft



4. Drawdown



3. Liftings

YOUR FIRST PROJECT – A SET OF 4 DISH TOWELS

You will need:

Warping frame

Loom – Eight shaft loom

Reed – 10 dpi (10 ends per 2.5cm)

Tape measure

Warp sticks

Cross sticks

Raddle Kit

Threading hook

Reed hook

String

Scrap yarn

Shuttle

Scissors

Warp and weft yarn – Ashford Cotton 5/2 (100% cotton; 848m/927yds; 200gms/7oz), Bleached White 300gm (101/2oz), Twilight Grey 60gm (2.1oz) and Black 110gm (3.8oz).

Here's how:

Sett – 20 ends per inch (8 ends per cm)

No. of ends: 320

Warp length: 3.8yds (3.5m)

Width in reed: 16in (40cm)

Finished size (hemmed and washed): 4 x 14½ x 24in (37 x 61cm)

Weave Structure:

Twill

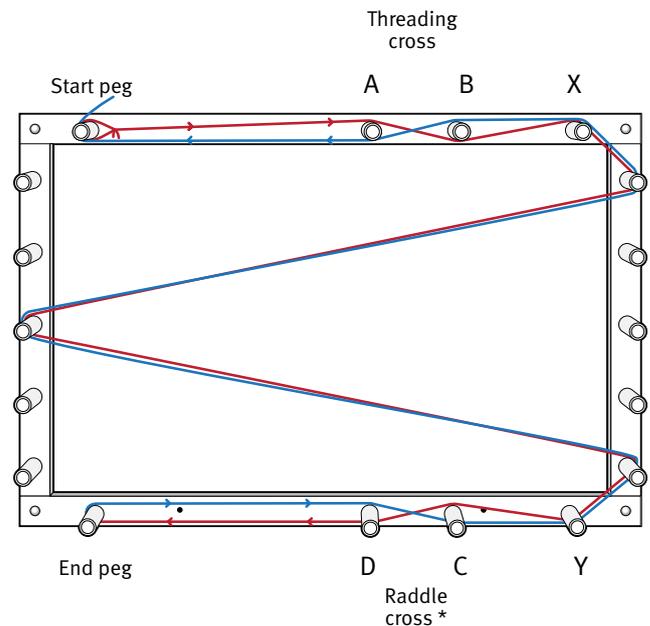
Winding the Warp

Warp Colour Order

Using a warping frame wind on the warping threads in the following sequence:

Remember: Each trip from the start peg to the end peg and back again will be two warp ends.

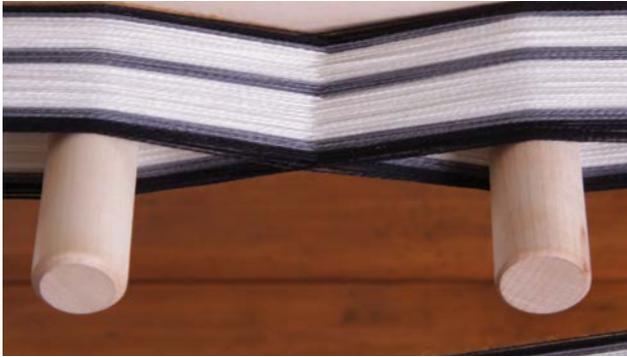
1. Wind 20 ends Black
2. Wind 20 ends Grey
3. Wind 100 ends White
4. Wind 40 ends Grey
5. Wind 100 ends White
6. Wind 20 ends Grey
7. Wind 20 ends Black



* The raddle cross will be made after each group of 10 threads.

Crosses

For fuss-free warping, you will make two crosses.

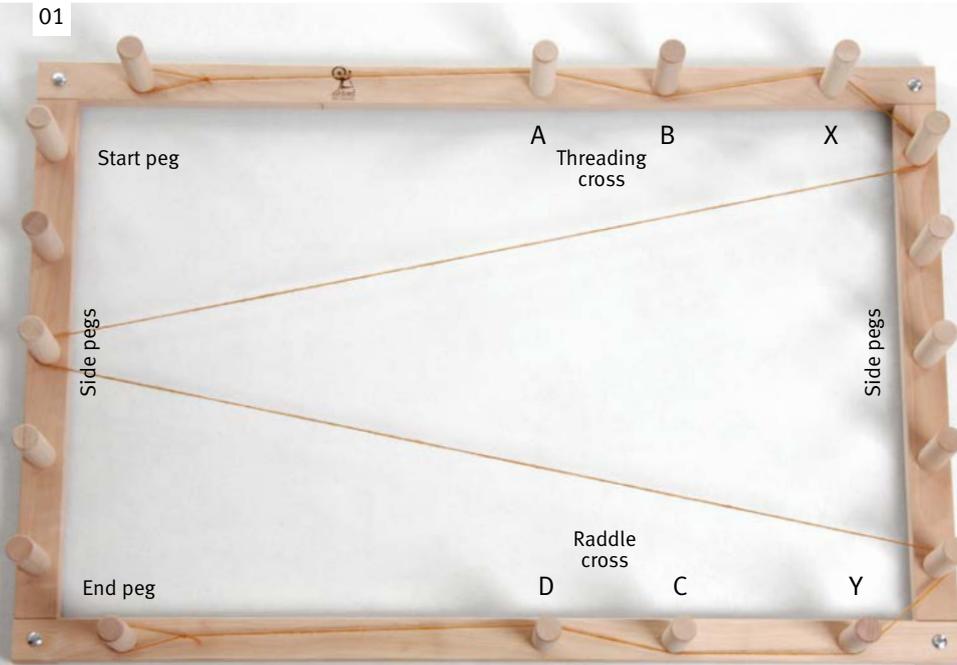


The first cross, between pegs A and B, is the threading cross which keeps the yarn in the correct order for threading. Each thread is separated at the cross.



The second cross between pegs C and D is the raddle or counting cross. As the Ashford raddle has half inch (13mm) spacings and this project has a sett of 20 dpi we will make the raddle cross after each group of 10 threads.

01



WINDING THE WARP

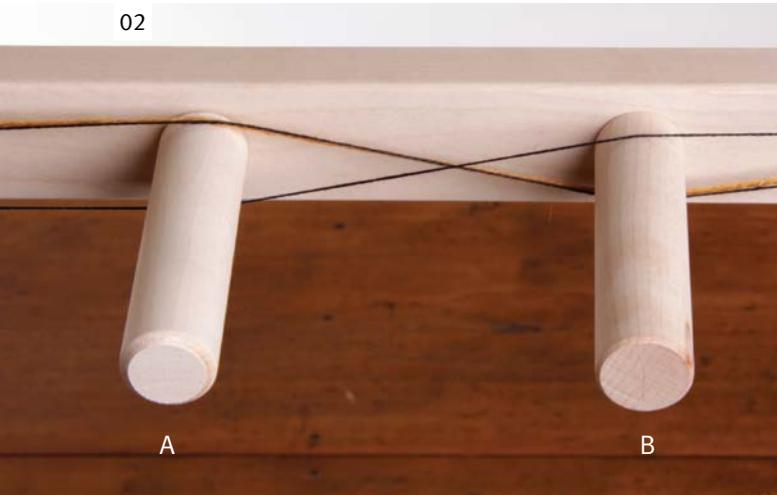
Measure a length of string the required length of the warp. Tie it to the starting peg, take it over peg A, under peg B, over peg X. Go back and forth across the side pegs to accommodate the length of the warp. Finishing by going around peg Y, under C, over D and tie to the end peg. This is your warping guide.

Note: All threads must pass around collection pegs X and Y and enough middle pegs to reach the required warp length.



See video tutorial on
Winding a warp
<https://youtu.be/JsLHfw6dNWo>

02



Place the yarn at your feet and begin winding your warp following your warping colour guide, remembering to take the yarn over A and under B (when returning pass the yarn over B and under A). This makes the threading cross. Continue around X and the side pegs, down and around Y.

03



Take the yarn under C, over D and around the end peg. As the raddle cross is in groups of 10, return over D and under C for 10 threads (5 return trips). The eleventh thread will go over C, under D, around the end peg, back under D and over C. Now follow the warp colour order on the previous page.

04



RADDLE CROSS

As you wind, it is very important to keep an even tension on your yarn. After each group of ten ends make a cross between pegs D and C

05



Push the warp to the base of the pegs from time to time. If the yarn needs to be joined or you are starting a new colour, always tie on at the start peg.

06



When the warp is finished, knot the last end to the start peg. Secure the warp by loosely knotting scrap yarn through the middle of the threads of the start peg, the threading cross at pegs A and B, the raddle cross Cand D and the end peg. For longer warps also place choke ties (tightly) at intervals along the warp.

07



To remove the warp begin at the start peg. Take your hand through the loop and reach for the warp pulling it back through the loop. Put your hand through the new loop and continue chaining until you reach peg Y.

08



NOTE: For wider warps wind your warp in two or three separate warps. Winding off and chaining each one.

09



Before you take your warp to the loom you need to prepare the raddle. The raddle will keep the threads spaced correctly as you wind your warp on the loom.

10



WARPIING THE LOOM

Place a heavy object on the end of the warp, or ask a friend to hold.



See video tutorial on How to put a warp on your table loom

Part 1 <https://youtu.be/MVjOF4cfc-Y>

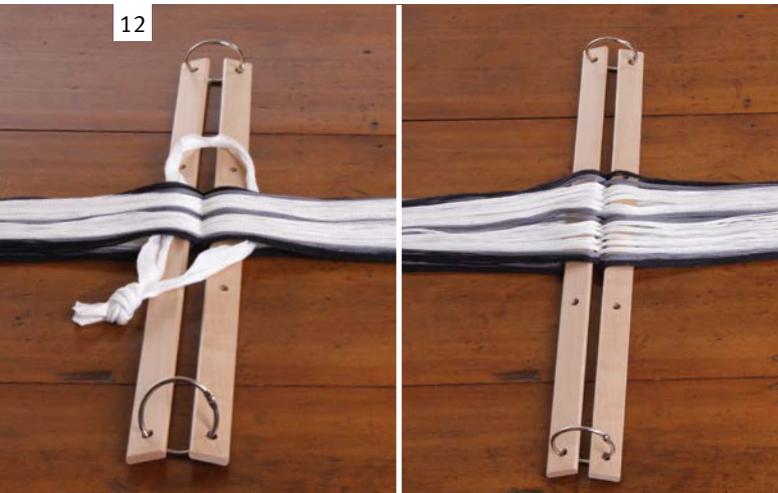
Part 2 <https://youtu.be/BN81LANghqc>

11



Insert one cross stick through each side of the raddle cross.

12



Secure the two sticks with the metal rings included in the raddle kit. Remove the cross tie.

13



Holding the warp up with the cross sticks place the raddle on the table underneath the raddle cross.



14

Remove the ring from one end of the cross stick. Slide each group of threads off the cross stick and into the raddle. The raddle used has 32 spaces, and as we have 32 groups we are starting at the end space.



15

If your project is narrower, count the spaces from the centre pin to ensure the warp is evenly placed on the raddle. The centre pin is marked. Secure the warp with rubber bands.



16

Take the raddle with warp to the loom and secure the raddle to the back beam as shown. Take the beginning of the warp through the castle and let it hang over the front beam.



17

Place the warp end stick through the end of the warp. Remove the tie.



18

Slide warp end stick into loops on back warp stick of loom (refer to the assembly instructions for how to attach back warp stick). Secure each end with a rubber band.



19

Spread the warp out to the same width as the threads in the raddle. Remove the reed and beater top rail.



20

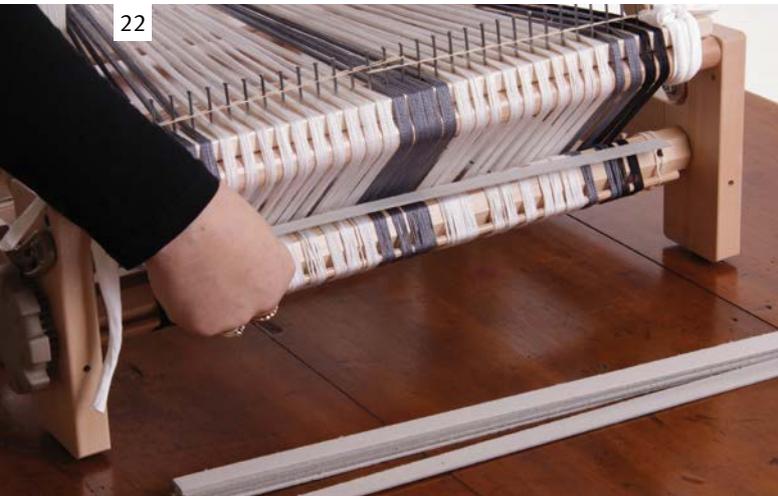
BEAMING THE WARP

Ensure the rear pawl is in the ratchet. Holding the warp under tension with one hand, wind on until the end stick has wrapped around the back roller. Check that the ties securing the raddle are not caught around the roller.



21

CHECK THE DIRECTION YOU ARE ROLLING THE WARP ON. IT MUST GO IN THE DIRECTION SHOWN BY THE ARROWS.



22

Place a cardboard warp stick across the roller.



23

Continue beaming, inserting a cardboard warp stick at each revolution of the roller to separate the warp layers and allow the warp to beam even and smoothly.



24

Wind on until the threading cross arrives behind the castle.



25

To remove the raddle, hold the warp up slightly, remove the rubber bands and the ties.



26 Drop the raddle down from the warp.



27 Attach 'helping hands' (stretchy cord included in the raddle kit) to the loom. On each side go from the front beam, through the castle, around the back beam, back through the castle and tie at the front beam (see A).



28 Place the cross sticks into the cross.



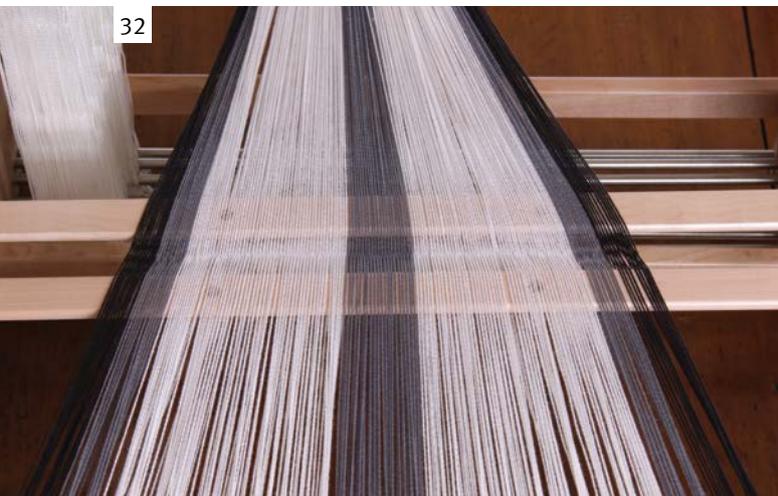
29 To support the cross sticks, use the helping hands, crossed in a figure eight.



30 Secure both ends of the cross sticks with the metal rings.



31 Remove the threading cross tie.



32 **THREADING THE LOOM**

Push the heddles to the centre of the loom. NOTE: We moved some heddles from shafts one and eight to the other shafts. Always check how many heddles are needed on each shaft BEFORE you begin.



33 Take the warp through the castle to the left of the heddles. Tie the warp threads with a piece of scrap yarn using a larks head knot. Secure the scrap yarn to the front beam. Remove the tie from the end of the warp and cut the loops.



34

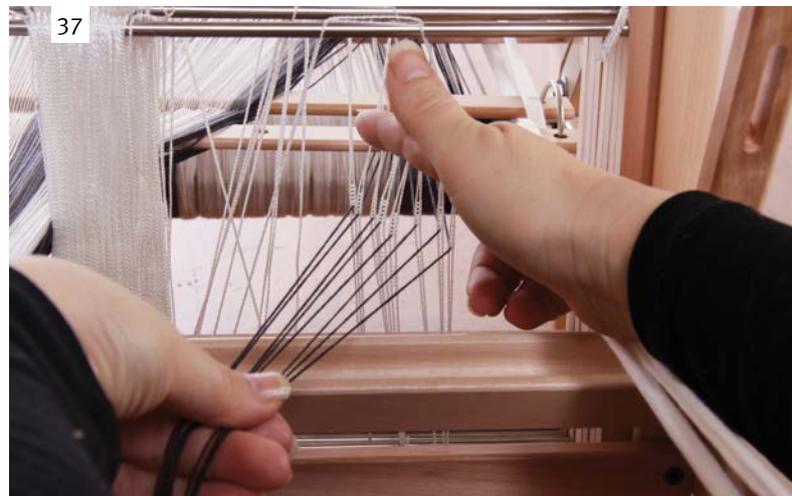


35

Following the weaving draft from right to left. Take the first thread on the right of the warp, using the heddle hook, pull it through the eye in the first heddle on the far right of shaft one (front).



36



37

Take the next thread through the eye in the first heddle on the far right of shaft two. Continue working from right to left, taking one thread through the eye in the heddle on shafts three, four, five, six, seven and eight, seven, six, five etc. Continue until all the threads are through the eyes of heddles.

Check each half inch (13mm) group as it is threaded.

NOTE: It is better to check as you go than to get the full width threaded and then find a mistake.



38

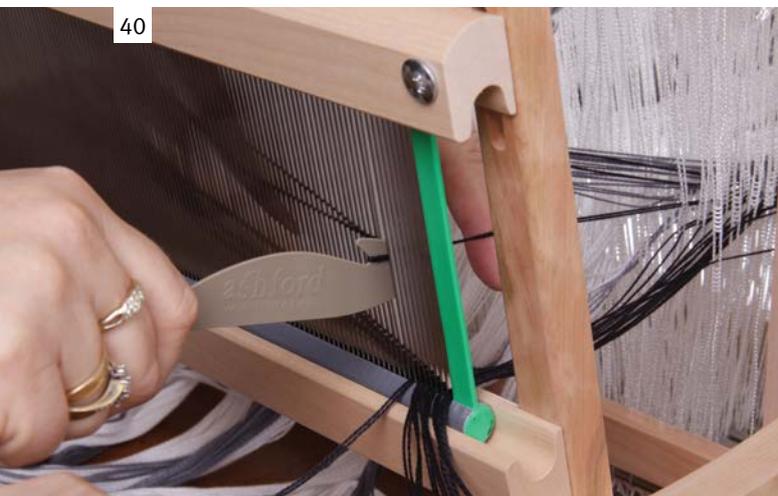
Tie that group in an over hand loop knot in front of the heddles. When all threaded remove the cross sticks and helping hands.



39

SLEYING THE REED

Replace the reed and top rail onto the beater. Hold the beater in place with the cotter pins.



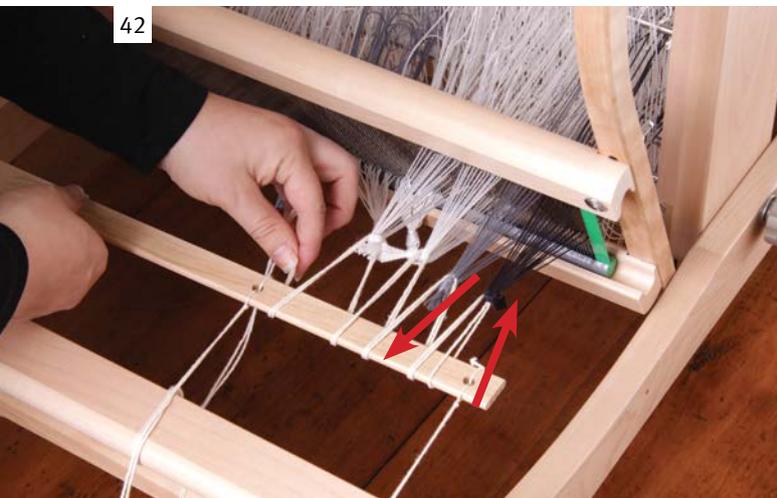
40

For this project, the sett is 20 epi and there are 10 dents per inch (dpi) in the reed, therefore two ends are placed in each dent. Our project is the full width of the loom, start on the far right slot of the reed. If your project is narrower, take the threads through the slot in line with the outside thread of the warp on the back beam, or measure width from centre of reed.



41

Once sleyed, tie half inch (13mm) groups with a secure knot close to the end.

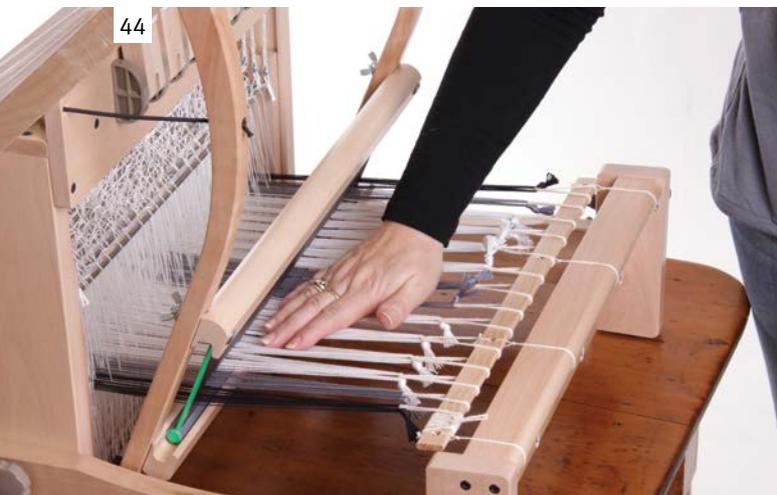


42



43

TYING ON TO THE FRONT OF THE LOOM - Bring the front warp stick up and over the front beam. Place the pawl in the cog. Take a piece of cotton string, approximately 10 times the width of the warp, take it around the front warp stick in line with the right-hand side of the warp. You now have a double thread to “leash” your warp to the front warp stick. Take the ends of the string through the centre of the first group of threads, around the front stick, through the centre of the second group of threads and around the front stick. Continue across the warp, pulling the leashing string firmly as you go. When you reach the left hand side, wind the string around the warp stick and secure with a larks head knot, do 3 of these knots. See video tutorial on Table Loom Warping Part 2 <https://youtu.be/BN81LAN9hqc>



44



45

Check that the tension is even across the warp, adjusting the leashing as necessary. Using scrap yarn, weave a heading of plain weave to spread the warp evenly.

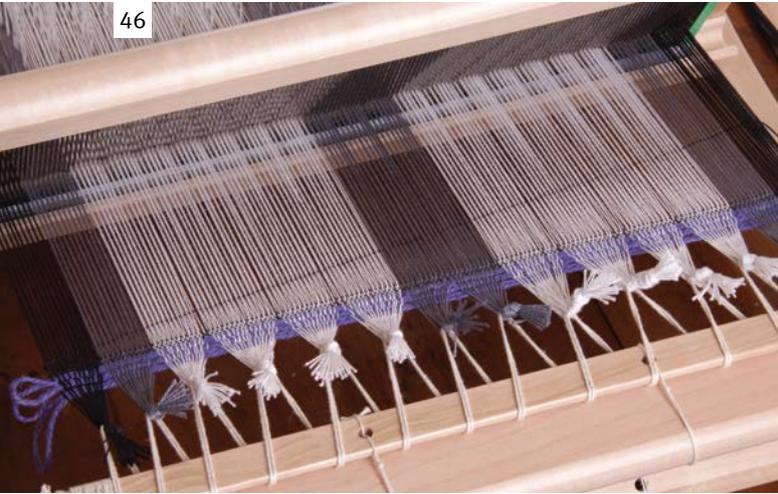
NOTE: If the weaving is not straight you can adjust the tension by pulling on the string you leashed it on with.



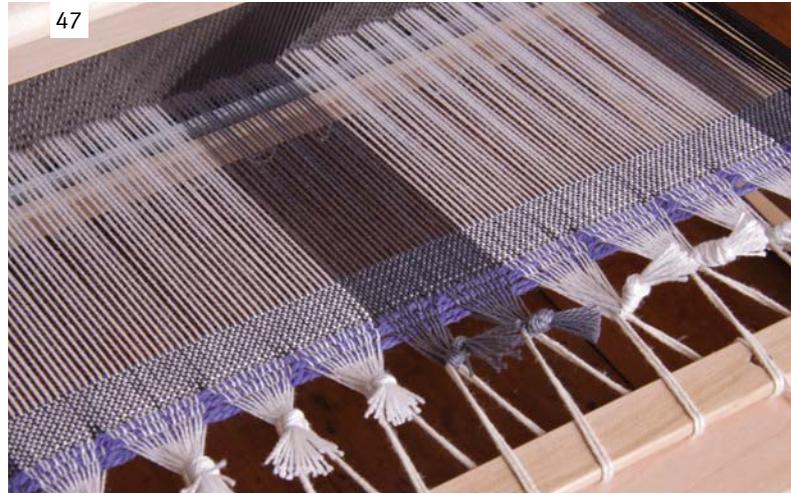
Spread your warp using some scrap yarn. See video tutorial on Spreading the warp <https://youtu.be/A-SW47MtrsQ>.

Plain weave: raise shafts one, three, five and seven, weave one pick. Lower shafts one, three, five and seven. Raise shafts two, four, six and eight. Weave one pick. Beat firmly. Continue until warp threads are spread evenly.

46



47



WEAVING

Wind a shuttle with 5/2 Cotton, Black. Begin weaving the runner following the lifting sequence in the weaving draft.

Weave the hem in plain weave. Raise shafts one, three, five and seven and enter the shuttle from right to left. Leaving the weft yarn at a 30° angle and 1in (2.5cm) of weft yarn hanging out at the beginning of the pick. Lower all shafts. Raise shafts two, four, six and eight. Beat weft into place with reed. Tuck the tail end of the thread from the first row into this row. Pass the shuttle from left to right.

Lower shaft two, four, six and eight. Raise shafts one, three, five and seven. Beat. Continue with this sequence for 1in (2.5cm). Now weave the pattern. Raise shafts one, two, four, five and six, weave one pick. Lower these shafts and raise shafts two, three, five, six and seven, beat previous weft into place, then weave one pick, continue as per pattern. When you reach the last row on the draft begin at the first row of the pattern again. Weave 2in (5cm) of black, 2in (5cm) of grey, 16in (40cm) white, 2in (5cm) grey and 2in (5cm) black. Weave 1in (2.5cm) in plain weave for the hem. This is one towel woven. Raise shafts one, three, five and seven, place a cardboard warp stick in the shed, lower one, three, five and seven. Raise shafts two, four, six and eight, place another cardboard warp stick. This is your spacer between the towels. Begin weaving again. Weave hem, then pattern, then hem.

As the weaving progresses you will have to advance the warp. With all shafts lowered (neutral) release the pawl from the back cog and wind the warp forward by turning the front handle until the last pick is about 2in (5cm) from the front beam. Tighten the tension. As you roll the weaving around you will need to place a strip of cardboard in to cover the knots so they will not poke up through your weaving causing bumps that may affect the tension.

48





When the weaving is finished cut from the loom. Remove the heading yarn and using a sewing machine, or by hand, hem under $\frac{1}{2}$ in (13mm) at the ends of each towel. Wash in warm, soapy water, dry lying flat and press while still slightly damp.



Off the loom



Washed fabric

FINISHING

When weaving is removed from the loom and before it is washed, darn in all the loose ends. All weaving should be washed so the threads open up and fill the spaces, changing the interwoven threads into fabric.

HELPFUL HINTS

Tying Knots

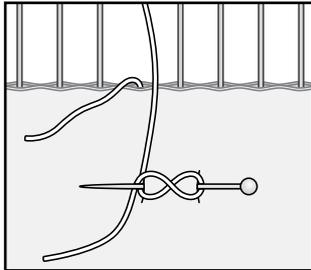
When you tie any knot during weaving you may need to undo it again at some stage. Always tie a knot that you can undo easily.

Beating

Always beat gently. Sometimes the work will look a little open. Remember, the work is under tension on the loom and will come together when taken off. Also, the washing process will close the gaps a little.

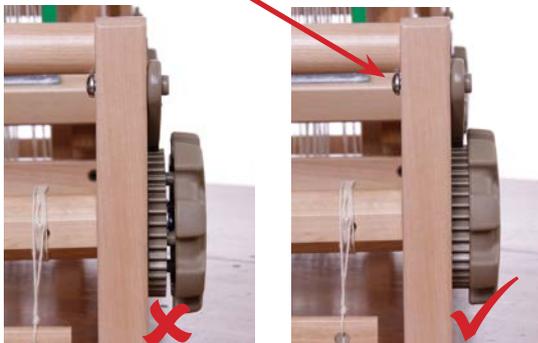
FIXING A BROKEN WARP THREAD

Take a piece of the yarn you used for the warp, make it the same length as your warp. From the back of the loom, thread the yarn through the heddle eye and reed dent (where the broken thread was). Attach it to the weaving in a figure eight around a pin placed approximately 1in (2.5cm) from the edge of the weaving. Hang the end of the yarn over the back beam with a small weight. Resume weaving. * Remove pin before the weaving is wound around the front beam, otherwise it will catch on subsequent layers. Carefully trim end near cloth when fabric removed from loom.



ASSEMBLY CHECK

Check there is a 0.5mm gap between the screw that attaches the pawl and the wood.



Check your handles are attached correctly.

TENSION

- *The key to successful weaving is to wind the warp on the back roller with an even tension. This takes practice.
- *Be kind to yourself, your threads and your loom.
- *Be sure each side is rolling on with the same tension.
- *Place cardboard sticks between each layer as the warp is rolled on. This prevents the threads pulling through the previous layer.
- *Check both selvages roll on with even tension.
- *At first it is useful to have the assistance of a friend.
- *When you are on your own take the warp in one hand, put the index finger through and down the centre to divide the warp, use the second finger and thumb to spread the warp away from centre and hold the warp under fourth and fifth fingers, then bring the warp down on the front beam to tension. Wind on with the other hand. This technique is suitable for looms no wider than 60cm (24in).
- *Tie or leash to front stick. With the back of your hand check for even tension across the warp. Adjust if necessary.
- * If the warp is correctly wound on the loom, little tension is necessary. If excessive loom tension is required to even the warp tension we recommend you unwind the warp, feeding it back through the reed and wind on again, following the advice above. When wound correctly the warp tension is even and light.



LOOMS AND ACCESSORIES

Ashford Table Looms are available with four or eight shafts, 40, 60 or 80cm (16, 24 or 32in) wide. The Katie Loom is eight shafts, 30cm (12in) wide. There is also a 16 shaft Table Loom, 60cm (24in) wide.

Recommended Accessories

Warping Frame – holds 11m (37ft) of warp. Includes clamps.

Warping Frame Small – holds 4.5m (14½ft) of warp. Lacquered. Perfect companion for the Katie Loom.

Warping Mill – holds 15m (50ft) of warp.

Raddle Kit – for even warp distribution with ½inch spacing, 30, 40, 60 or 80cm (12, 16, 24 or 32in) wide.

Other Accessories

Loom Stand – strong frame with 2 shelves. Folds flat for storage. Lacquered.

Treadle Kit – four treadles for direct tie up.

Second Back Beam – second back roller and beam.

Boat Shuttle and Bobbins.

Bobbins and Bobbin Winders.

Yarn Stand – holds six cones. Smooth yarn guides ensure snag-free warping. Rubber feet for stability. Lacquered.

Hobby Bench – seven height positions, tilt option for comfortable weaving and roomy storage compartment.

Fringe Twister - for quick and easy finishing of ends.

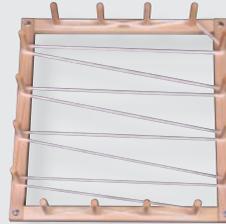
Pick Up Sticks and Shuttles – in various sizes.

Warp Thread Weights – to weigh floating selvages, supplementary or broken warp threads.

Reeds - stainless steel reeds for different setts or yarns: 6, 8, 10, 12 and 16dpi.



Warping Frame



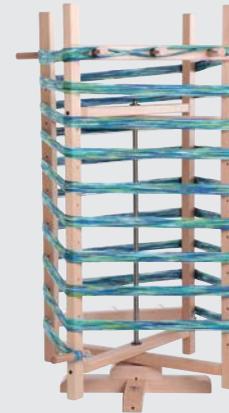
Warping Frame Small



Yarn Stand



Warp Thread Weights



Warping Mill



Raddle Kit



Second Back Beam



Boat Shuttles and Bobbins



Bobbin Winders



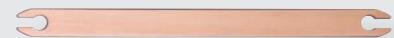
Fringe Twister



Hobby Bench



Pick Up Sticks (8 sizes)



Shuttles (7 sizes)



Wavy Shuttles (3 sizes)

RESOURCES



Ashford Book of Weaving Patterns From Four to Eight Shafts

By Elsa Krogh

All of Elsa's favourite patterns - a mixture of classic weaves and modern techniques - for fashion and homeware. 92 pages



The Wheel Magazine

Ashford's annual fibrecraft magazine. Spinning, weaving, felting, dyeing and knitting projects, patterns and articles from around the world. To receive the premium version delivered to you, subscribe at: www.ashford.co.nz/subscribe

Youtube tutorials



Winding a warp



Table loom warping Part 1



Table loom warping Part 2



Tying a warp on a Rigid Heddle Loom



Spreading a warp on a Rigid Heddle Loom



Weaving on the Jack Loom



Using the Fringe twister



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www.youtube.com/user/AshfordHandicrafts/videos

For more information, helpful hints and inspiration we recommend The Ashford Book of Weaving Patterns from Four to Eight Shafts. Visit our website to view our tutorial videos www.ashford.co.nz



LTWTL VW1 2020

Ashford Handicrafts Limited
415 West Street, PO Box 474, Ashburton, New Zealand
Ph +64 3 308 9087 sales@ashford.co.nz www.ashford.co.nz

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