



The Definitive Guide to Grafting: *Ribbing*

Excerpted from *How to Graft Your Knitting Invisibly* by Joni Coniglio.

Chapter 3: Grafting Rib in Two Directions

Top-to-Top and Top-to-Bottom

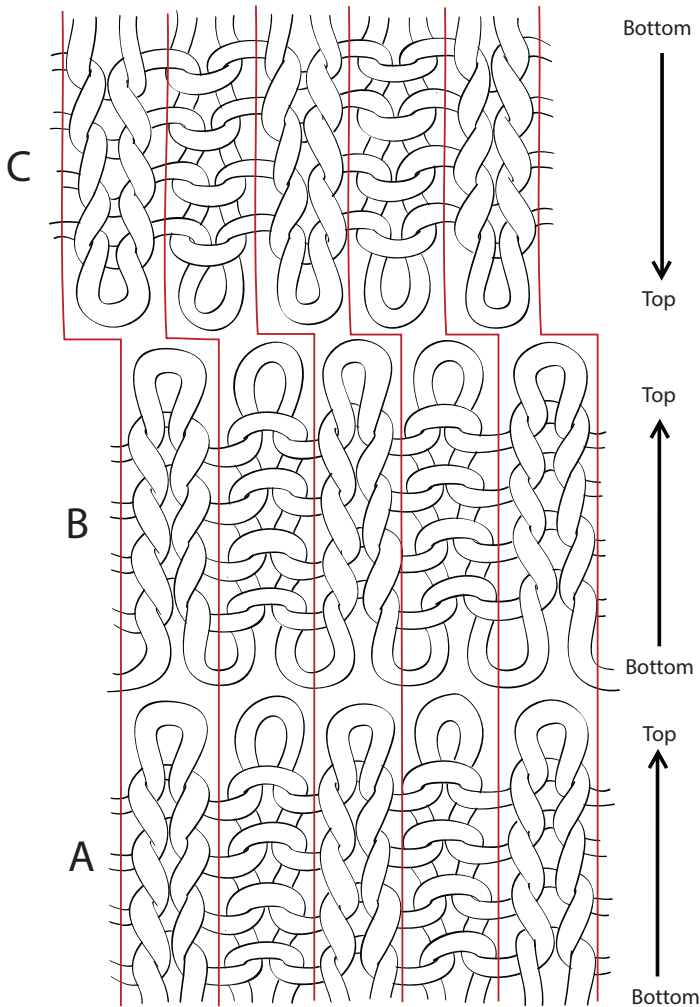


Figure
no. 1

In this chapter, we're going to look at how ribbing is grafted both top-to-top (grafting the last row of one piece to the last row of another piece) and top-to-bottom (grafting the last row of the piece on the front

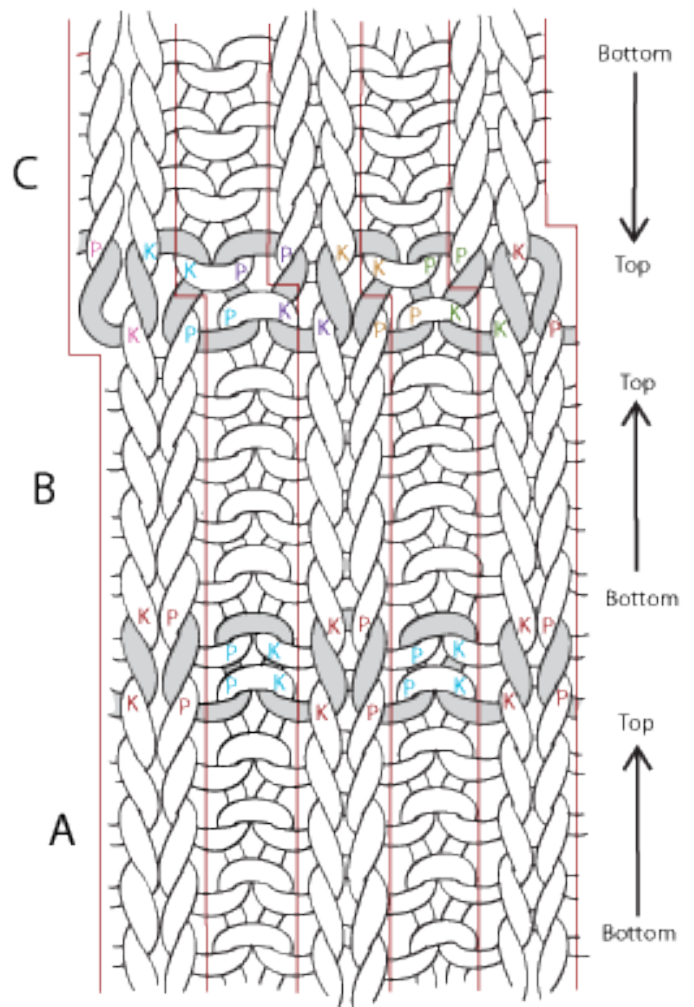


Figure
no. 2

needle to the provisional cast-on row on the back needle). This is the first time that we're talking about knitting direction because it's the first time it will have an impact on the grafting.

In top-to-top grafting, the direction of knitting on both pieces (B and C in Figures 1 and 2) is oriented toward the grafted row, which means that while the piece on the front needle (B) is oriented in the same direction in which it was knit, the piece on the back needle (C) is upside-down.

In top-to-bottom grafting (A and B in the illustrations), the direction of knitting on the front needle (A) moves toward the grafted row while the direction of knitting on the back needle (B) moves away from it. This means that the direction of knitting on both pieces is the same.

In the last chapter, when we talked about grafting stockinette stitch, reverse stockinette stitch, and garter stitch, we didn't discuss the differences between top-to-top and top-to-bottom grafting because the patterns look the same whether you're viewing them right-side up or upside down. In other words, you wouldn't be able to tell the direction of knitting by looking at the center of the fabric; you'd only be able to tell by looking at the edges.

But this isn't the case with rib patterns. In the illustrations, you can clearly distinguish the knit columns from the purl columns. Thus, it's very easy to tell that C is upside down because the Vs in the knit columns and the purl bumps in the purl columns are facing the opposite direction from those in A and B. And, if you remember from our discussion in the last chapter, the stitches on the back needle shift to the left a half stitch in relation to the stitches on the front needle because they sit between the stitches on the front needle. This shift isn't obvious with a pattern like stockinette stitch or even garter stitch, but with a pattern such as k1, p1 rib, where vertical lines are created by the transitions between knit and purl stitches, the shift will be more noticeable. At least, this is the case when stitches are grafted top-to-top, which can be seen by comparing B and C in the illustrations. This isn't an issue with top-to-bottom grafting (which we'll discuss in more detail a bit later). But let's begin with top-to-top grafting.

GRAFTING RIBBING TOP-TO-TOP

In Chapter 2, we used four chart symbols (Figure 3) to represent the grafting for stockinette stitch, reverse stockinette stitch, and both versions of garter stitch (Figure 4). For each stitch pattern, we only needed to use two symbols: one for the front needle and one for the back needle. But when ribbing is grafted top-to-top, both knit and purl stitches are created on each needle so we need to use all four symbols at the same time, two front needle symbols and two back needle symbols. This is a chart for k1, p1 rib over an odd number of stitches (Figure 5).

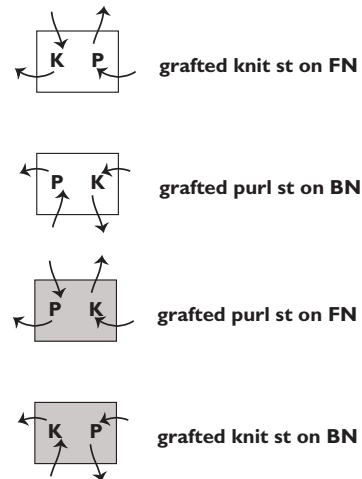
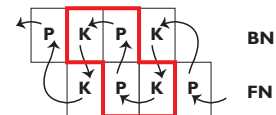
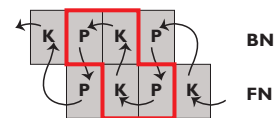


Figure no. 3

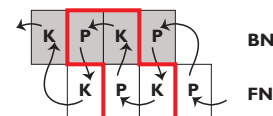
Stockinette St Grafting Chart (top-to-top)



Reverse Stockinette St Grafting Chart (top-to-top)



Knitted Garter St Grafting Chart (top-to-top)



Purled Garter St Grafting Chart (top-to-top)

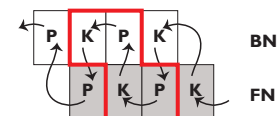


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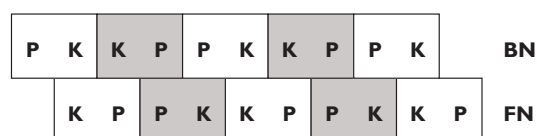


Figure no. 5

Because the pattern is a multiple of two stitches, plus one, we can reduce the chart to its smallest multiple (three symbols for each needle; Figure 6) and add a repeat box for the repeated sequence. In this case, because the stitch repeat contains two stitches, the grafting repeat will contain eight individual steps (two times four).

This illustration (Figure 7) shows the grafted ribbing as it appears from the right side (just as the grafting chart does), and with the grafting steps noted on each stitch. The jog in the pattern is more noticeable than it is with stockinette grafting because of the combination of knit and purl stitches on each row.

Note that at the transition between knit and purl stitches on the front needle, there are two consecutive knitwise steps, and at the transition between purl and knit stitches, there are two consecutive purlwise steps. The same transitions occur on the back needle (but in a different order), as can be seen in Figure 8 which shows the stitches as they'd appear on the back needle with the wrong side of the work facing. In grafted k1, p1 rib (top-to-top), the transitions occur one right after the other.

Here are the written instructions for grafting in k1, p1 rib:

Set-Up Steps

Step 1 FN: Pwise, on.

Step 2 BN: Kwise, on.

Repeated Sequence

Step 3 FN: Kwise, off; Kwise, on.

Step 4 BN: Pwise, off; Pwise, on.

Step 5 FN: Pwise, off; Pwise, on.

Step 6 BN: Kwise, off; Kwise, on.

Repeat Steps 3–6 until 1 st rem on each needle.

Ending Steps

Step 7 FN: Kwise, off.

Step 8 BN: Pwise, off.

The chart symbols can be combined in any order for any type of rib pattern. For example, here is a chart for k2, p2 rib, beginning and ending with k2 (Figure 9). The pattern is a multiple of four stitches, plus two, so there are six symbols for each needle. There are sixteen individual steps in the grafting repeat (four times four). In the case of k2, p2 rib, the transitions are separated by four-step sequences of stockinette and reverse stockinette stitch grafting.

K1, P1 Rib Grafting Chart (top-to-top)

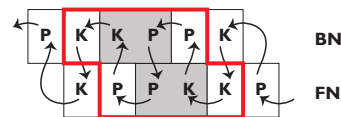


Figure no. 6

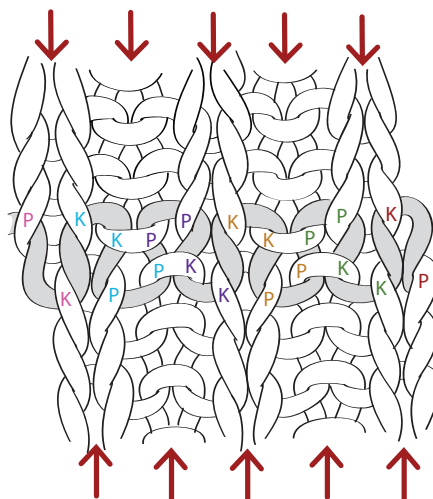


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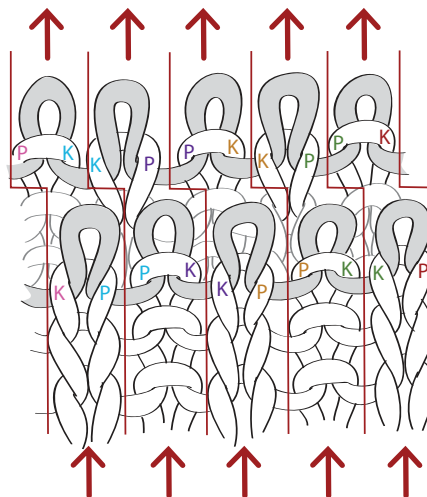


Figure no. 8

K2, P2 Rib Grafting Chart (top-to-top)

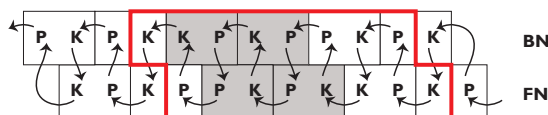


Figure no. 9

Here are the written instructions for grafting in k2, p2 rib:

Set-Up Steps

Step 1 FN: Pwise, on.

Step 2 BN: Kwise, on.

Repeated Sequence

Step 3 FN: Kwise, off; Pwise, on.

Step 4 BN: Pwise, off; Kwise, on.

Step 5 FN: Kwise, off; Kwise, on.

Step 6 BN: Pwise, off; Pwise, on.

Step 7 FN: Pwise, off; Kwise, on.

Step 8 BN: Kwise, off; Pwise, on.

Step 9 FN: Pwise, off; Pwise, on.

Step 10 BN: Kwise, off; Kwise, on.

Repeat Steps 3–10 until 2 sts rem on each needle.

Ending Steps

Step 11 FN: Kwise, off; Pwise, on.

Step 12 BN: Pwise, off; Kwise, on.

Step 13 FN: Kwise, off.

Step 14 BN: Pwise, off.

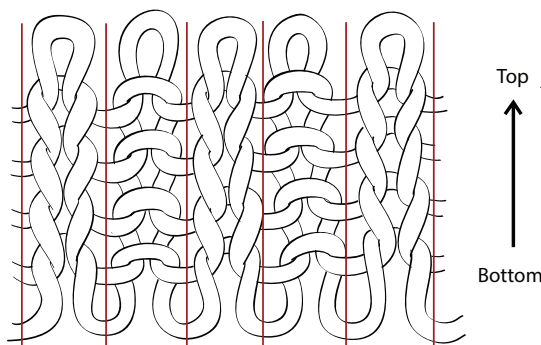


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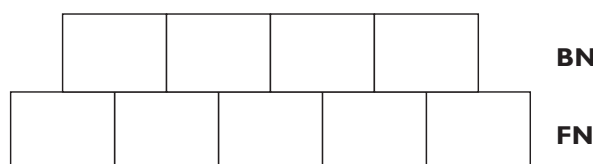


Figure no. 11

GRAFTING RIBBING TOP-TO-BOTTOM

There is a big difference between top-to-top and top-to-bottom grafting when grafting ribbing. In Figure 10, the top of the ribbing has clearly defined knit and purl stitches, but the transition lines between knit and purls bisect the loops at the bottom of the ribbing because these loops are formed by the strands that run between the stitches on the needle. So the loops at the bottom are half knit/half purl and half purl/half knit. There is also one fewer whole loop on the bottom row than on the top and a half loop at each side of the bottom row (which we'll talk about later).

The loops on the top row in the illustration are the front needle loops and the loops on the bottom row are the back needle loops. To chart this rib pattern (over five stitches), we'd draw five boxes for the front needle loops and four boxes for the back needle loops (Figure 11) because of the one-stitch difference between the two rows. The boxes on the lower row of the chart would be shaded (Figure 12) just as they would be for top-to-top grafting because you are working with the tops of the front-needle stitches in both cases. But for the boxes on the top row, we have to take into account the fact that the transitions between knit and purl stitches occur within single loops, rather than between loops. Therefore, the symbols should be shaded on only one half of each box (the half that appears as a purl stitch from the right side). Notice that, even though the boxes on the two rows do not align, the transitions do. Enter the grafting steps on the top row like this, working from right to left: for the first loop, use the first half of a grafted purl stitch symbol on the back needle and the second half of a grafted knit stitch symbol (K, K), then for the second loop, use the first half of a grafted knit stitch symbol and the second half of a grafted purl stitch symbol (P, P). Enter the steps into the symbols for the third and fourth loops in the same manner. You could follow the grafting chart just as you would a chart for top-to-top grafting (Figure 13),

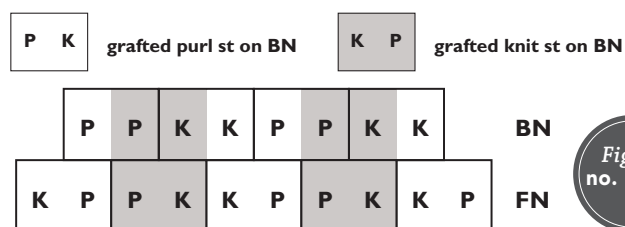


Figure no. 12

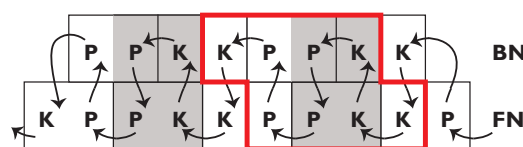


Figure no. 13

with two set-up steps and a repeated sequence consisting of two steps on the front needle followed by two steps on the back needle. The corresponding written instructions for the grafting would look like this:

Set-Up steps

Step 1 FN: Pwise, on.

Step 2 BN: Kwise, on.

Repeated Sequence

Step 3 FN: Kwise, off; Kwise, on.

Step 4 BN: Kwise, off; Pwise, on.

Step 5 FN: Pwise, off; Pwise, on.

Step 6 BN: Pwise, off; Kwise, on.

Repeat Steps 3–6 until 3 sts rem on FN and 2 sts rem on BN.

Ending Steps

Step 7 FN: Kwise, off; Kwise, on.

Step 8 BN: Kwise, off; Pwise, on.

Step 9 FN: Pwise, off; Pwise, on.

Step 10 BN: Pwise, off.

Step 11 FN: Kwise, off.

However, then you'd be working a pair of grafting steps across knit/purl transitions on the front needle, but not on the back needle, which may be confusing. I prefer to keep all four grafting steps (two on each needle) within the vertical alignment of the transitions on both needles. In order to do that, you have to do a little prep work to the cast-on stitches on the back needle. Remember the half loops at each side of the bottom row (Figure 14)? One of them was created when the cast-on row was completed and the yarn was drawn up to the next row to work the first stitch of that row. This half loop can be found at the very edge of the cast-on row, as can be seen in this photo of the wrong side of k2, p2 rib (Figure 15). Place this half loop on the needle with the other cast-on stitches. The other half loop can be created by threading the cast-on tail onto a tapestry needle and drawing it through from the right side to the wrong side of the work (Figures 16 and 17). The half loop at each side fills in the half-stitch "notch" at each side and helps to anchor the first

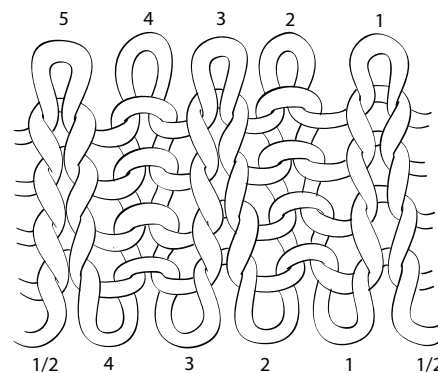
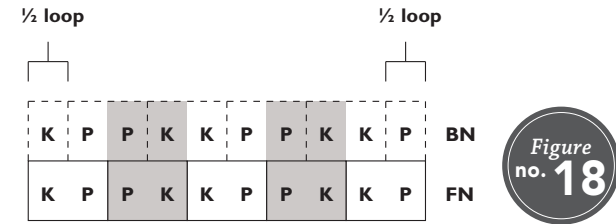
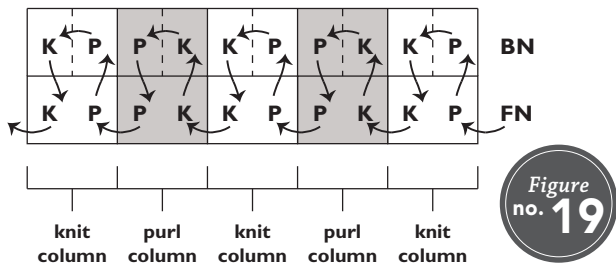


Figure
no. 14





and last grafted stitch. In this chart of k1, p1 rib (Figure 18), the half-loop at each side completes the first and last knit column. Work the grafting steps to coincide with the knit and purl columns of the pattern (Figure 19). So now we need to add two new chart symbols, both for the back needle, to use when charting top-to-bottom grafting (Figure 20): a knit stitch symbol and a purl stitch symbol (as they're viewed from the right side, not as they're worked on the wrong side). The dotted line in the center of each symbol marks the division between the loops on the needle. Work the four-step grafting sequence in each knit column like this (Figure 21):

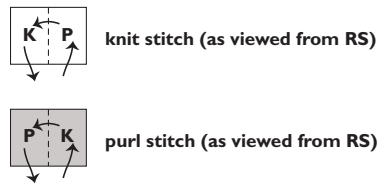


- Step 1 FN:** Pwise on.
- Step 2 BN:** Pwise, off.
- Step 3 BN:** Kwise on.
- Step 4 FN:** Kwise, off.

The last time Step 3 is worked in the row (using the half loop that was picked up at the edge), the stitch is removed from the needle.

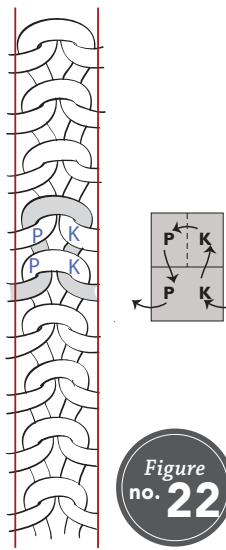
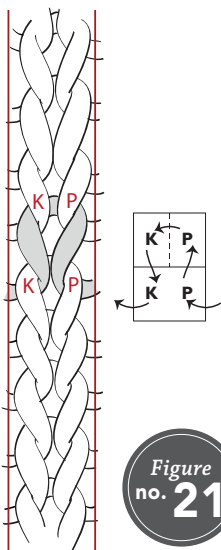
Work the four-step grafting sequence in each purl column like this (Figure 22):

grafted sts on BN (top-to-bottom)

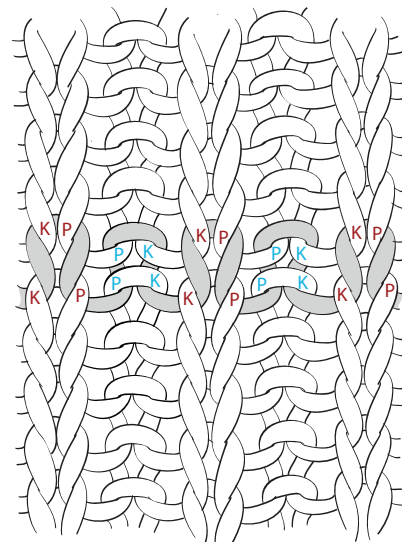
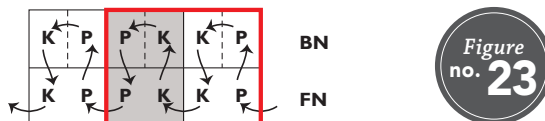


- Step 1 FN:** Kwise on.
- Step 2 BN:** Kwise, off.
- Step 3 BN:** Pwise on.
- Step 4 FN:** Pwise, off.

The grafting chart for k1, p1 rib can be condensed by adding a repeat box (Figure 23). In Figure 24, the grafted stitches are shown as they appear from the right side.



K1, P1 Rib Grafting Chart (top-to-bottom)



In Figure 25 the grafted stitches are shown as they appear on each needle, with the wrong side of the stitches on the back needle facing.

You can use the same grafting chart for k2, p2 rib by adding brackets under each knit and purl column to indicate that each four-step grafting sequence is worked 2 times.

Here's how k2, p2 rib would be grafted top-to-bottom: For the swatch that will be held on the front needle (Figure 27), I casted on 26 stitches. And for the swatch that will be held on the back needle (shown in Figures 15–17), I used the crochet chain provisional method to cast on 26 stitches. When I was ready to place the provisional cast-on stitches onto the needle, I created the half loops at each side as described, so that I had a total of 27 loops on the needle. I held the needle with 26 stitches in front and the needle with 27 stitches in back with the wrong sides together and worked the grafting steps for each knit and purl column as follows:

*Work 4 steps for knit column 2 times, then work 4 steps for purl column 2 times; rep from * until 2 sts rem on FN and 3 sts rem on BN (there should be 1 more st on the BN than on the FN). Then work 4 steps for knit column 2 times, removing st from needle on Step 3 on last rep.

This photo (Figure 28) shows that the knit and purl stitches will align perfectly when the graft is complete, compared to when grafting k2, p2 rib top-to-top (Figure 29) where there will be a half-stitch jog in the pattern.

In the next chapter, we'll see how knitting direction affects grafting lace patterns, and we'll add more chart symbols, including single and double decreases, yarnovers, and twisted stitches to our list.

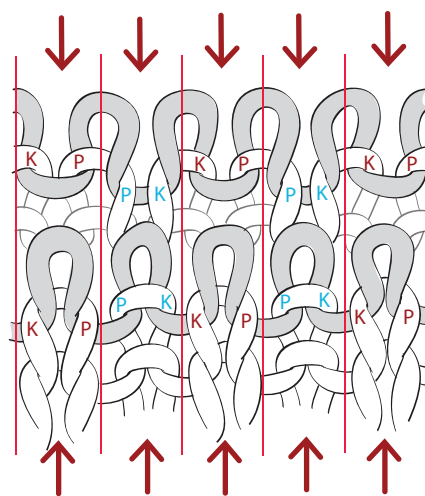


Figure no. 25

K2, P2 Rib Grafting Chart (top-to-bottom)

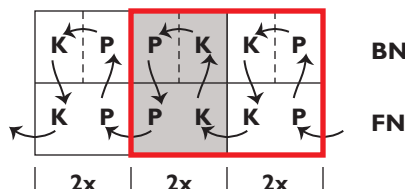


Figure no. 26



Figure no. 27



Figure no. 28



Figure no. 29