

CANDLE STICK SELECTION

Tools Required to Make these Designs:

Scrolling: Mk 2/2H or Mk 2/3 Former and Mk 1/2 (for Candlestick 1)
 Punching: Practical Punch/Shear
 Riveting: Practical RBR
 Bending: Practical RBR
 Rolling: Practical RBR
 Cutting: Practical RBR

Candlestick 1 - SINGLE

1 COMPONENT 1

Frame 255mm (x 2)

It is recommended with all steel lengths, you first remove any excess oil, grease or scale with a cloth or abrasive paper.

Take a 914mm (3') length of 12 x 2mm steel, cut two pieces to 255mm and trim all the corners then, using a fine tip marker or pencil, mark the points 'H1' and 'B1' as shown on Component 1 overleaf (Design Sheet 1). Next, using the Practical R/B/R, bend at points 'B1' & 'C1' to approx. 120° as shown in Diagram 1 then punch at points 'H1' in the centre of the steel. Repeat all this process on the second piece. Nut & bolt together.

2 COMPONENT 2

Main Scroll 350mm (x 1)

Cut down another length of 12mm x 2mm steel to 350mm, trim corners and mark at point 'S1' as shown on Component 2 overleaf. Using the Mk 1/2 Former, scroll the 230mm section up to 'S1' - this should be a full scroll. Next, set up the Practical R/B/R for rolling and roll the main curve as shown in Diagram 2. You will have to roll one way then turn around and roll the other. If you are new to rolling, you may want to practice on a test piece first, but remember, if you over-roll you can always put it in the other way round to straighten then start again. Your scroll should fit inside your Frame, if not, manipulate by hand to fit.

3 COMPONENT 3

Small Scrolls 100mm (x 2)

Trying to use the offcuts of steel from Component 1, cut two lengths to 100mm, trim corners and mark at 'S2' 60mm from one end. Scroll up to the 'S2' mark using the Mk 1/2 Former. If you are using the Mk 2/2H or Mk 2/3 Formers, you may have to adjust the scroll slightly. Do this with both strips. Using Diagram 2 as a guide, place the Small Scrolls in the Frame. Once you are happy everything fits, mark as shown then punch and nut & bolt together. Where the Large Scroll meets the Frame, mark and punch then nut & bolt together (or rivet if happy). Finally, undo the bolts at top and bottom of the Frame and add the base and candle holder. You may choose to paint the candle trays and holders in a different colour, if so, when all items are painted, reassemble and use Superglue on the nut & bolt threads for a permanent fixing.

Candlestick 2 - DOUBLE

1 COMPONENT 1

Scrolls 457mm (x 2)

Take a 914mm (3') length of 12 x 2mm steel, cut in half to 457mm and trim all the corners then, using a fine tip marker or pencil, mark the points 'S1' 110mm from each end as shown on Component No 1 overleaf (Design Sheet 1). Place in the Mk 2/3 Former and scroll to the marks 'S1' making sure you create a 'C' scroll. Next, set up the Practical R/B/R for rolling and roll between the two scrolls using Diagram 4 as a guide. Remember, if you over-roll you can always put it in the other way round to straighten then start again. Repeat all this on the second piece, making sure both 'C' scrolls are identical.

2 COMPONENT 2

Heart 220mm (x 1)

Cut another strip down to 220mm, trim the corners. Mark in the centre and at points 'S2' 75mm from each end using Component No 2 overleaf as a guide. Using the Mk 2/3 Former, scroll to the marks, again creating a 'C' scroll. Next, place in the Practical R/B/R and bend at the centre 'C1' - making sure you bend the right way to form a heart shape.

3 Assembly

Take the large candlestick base and mark the two punch points 'H1' approx. 13mm in from the edge as shown in Diagram 3 and punch. Taking the two Scrolls and, using Diagram 4 as a guide, mark at the punch points 'P1' and 'P2'. Whilst aligning the 'P2' marks with the holes in the base, make sure the 'P1' marks on each Scroll meet up and ensuring the tops of the Scrolls are level. Another person may be needed to help with this process. Once happy, punch at the four marks (in the centre of the steel) and nut & bolt together. Place the Heart between the two Scrolls and mark 'P3' on Heart and Scrolls where they meet. Undo the three nuts & bolts and punch at the four new marks. Then nut & bolt all together. Place the candle holders on top of the Scrolls, making sure they are level and carefully mark through the holes onto the Scroll tops. Punch and nut & bolt together. Finally rivet - making sure you rivet at the base first (you will have to twist the Scrolls to rivet). Next, rivet the centre and finally the Heart. Leave the nuts & bolts in the candle holders.

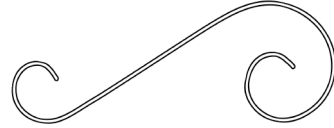
Candlestick 3 - TRIPLE

1 COMPONENT 1

Main Scroll 405mm (x 1)

Take a 914mm (3') length of 12 x 2mm steel and cut down to 405mm and trim all the corners then, using a fine tip marker or pencil, mark at points 'S1' 220mm from one end and 75mm from the other as shown on Component No 1 overleaf (Design Sheet 1).

Place in the Mk 2/3 Former (or Mk 2/2H) and scroll to the marks making sure you create an 'S' scroll (as shown here).



2 COMPONENT 2

Small Scroll 220mm (x 1)

Using the offcut, cut a strip down to 220mm, trim the corners. Mark at points 'S2' 75mm from each end using Component No 2 overleaf (Design Sheet 1) as a guide.

Using the Mk 2/3 Former or Mk 2/2H, scroll from each end up to the marks 'S2', this time creating a 'C' scroll.



3 Assembly

Using Diagram 5 (Design Sheet 2) as a guide, mark at the appropriate punch points 'H1' and 'H2' and punch, using the Practical Punch & Shear tool. Next, nut & bolt the two scrolls together and then attach the large base, again using a nut & bolt.

Take the small candle trays and rest them on top of each of the three small scrolls, making sure they all sit level. Carefully mark through the holes in the trays and punch at these points then nut & bolt together as shown in Diagram 6 (Design Sheet 2).

When you are happy with your candle stick, remove the nut & bolt at 'H1' and rivet the two scrolls together using the Practical R/B/R tool.



Design Pack CANDLE STICK SELECTION

DIFFICULTY RATING:

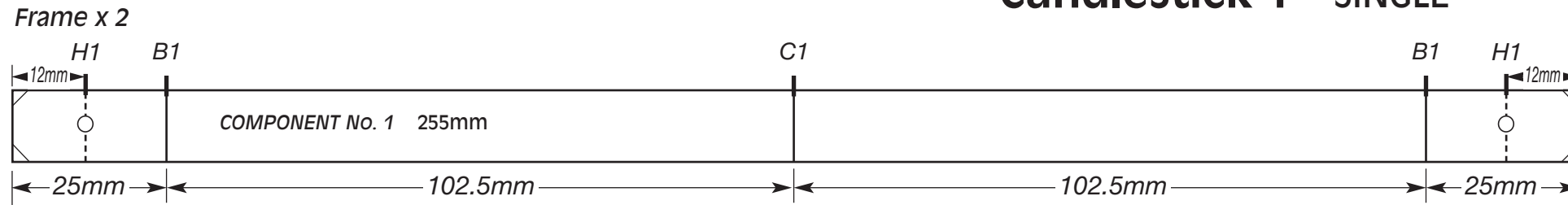
EASY	✓
STRAIGHTFORWARD	
MORE COMPLEX	

Finishing
 The finished item can now be painted in a wide variety of finishes (smooth, satin, hammer and metallic) either by aerosol or by brush application. Powder coating and plastic dip finishes can also be applied but these type of finishes are more for commercial/industrial scale finishing.
 However, even with aerosol or paint finish you can make your finished item look professional. In this case we used paints from the Plasti-Kote and Hammerite ranges - available from most DIY and Painting/Decorating outlets. For best results, always follow instructions on the tin and make sure the metal is free of all scale, dirt, grease or rust.
 You may choose to paint the candle trays and holders in a different colour, if so, when all items are painted, reassemble and use Superglue on the nut & bolt threads for a permanent fixing.

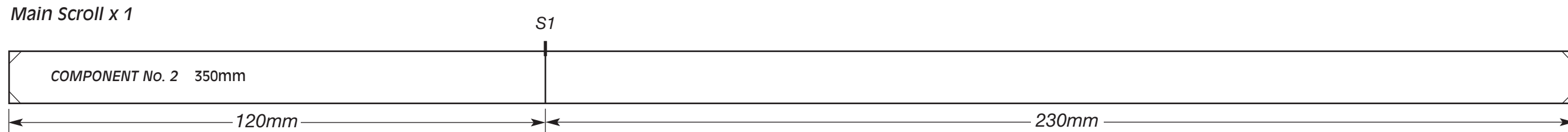


Design Pack: CANDLE STICK SELECTION - DESIGN SHEET 1 - COMPONENTS

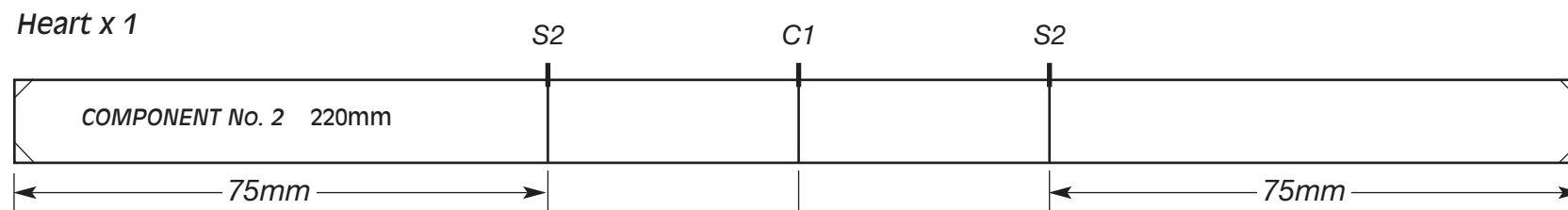
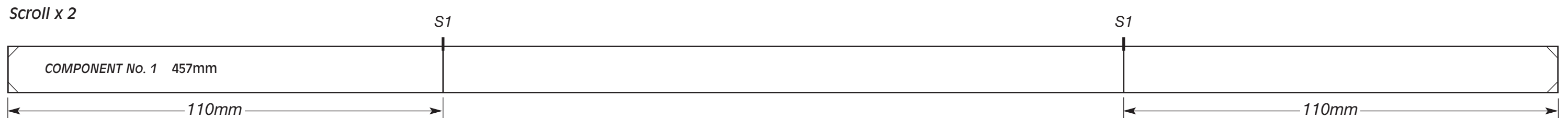
Candlestick 1 - SINGLE



- Small Scrolls x 2
- S2
- COMPONENT No. 3 100mm
- 60mm
- List of Materials Required (to make a pair):**
- 4 x 914mm (3ft) Lengths of 12mm x 2mm Steel Strip [Re-Order Ref: MC034]
 - 4 x 6mm x 3mm Rivets [Re-Order Ref: MC050L]
 - 4 x 10mm x 3mm Nuts & Bolts [Re-Order Ref: MC060L]
 - 2 x 8mm x 3mm Rivets [Re-Order Ref: MC052L]
 - 2 x MC1207P Flat Cone T Light Holder
 - 2 x MC1160 T41 Chunky Candle Tray

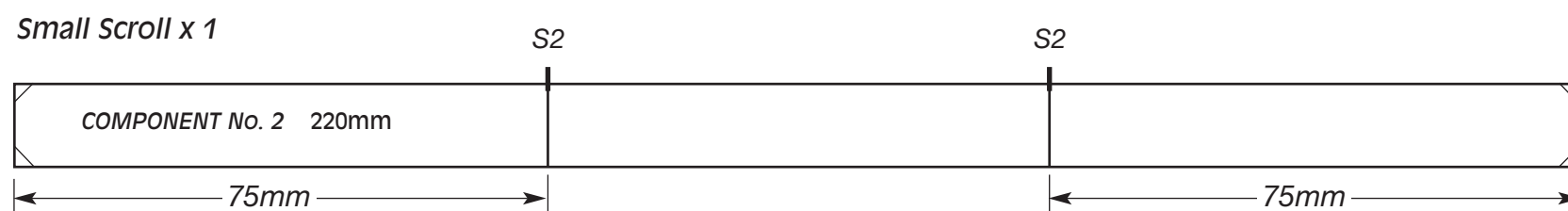
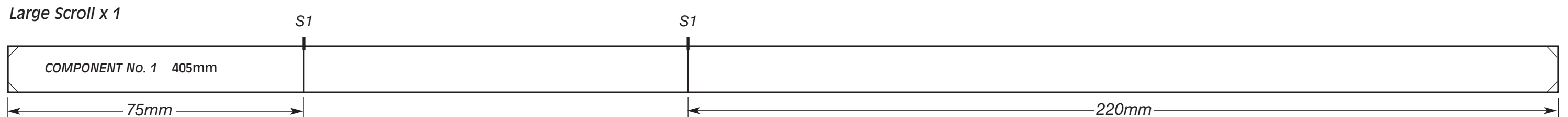


Candlestick 2 - DOUBLE (with heart)



- List of Materials Required (to make a pair):**
- 4 x 914mm (3ft) Lengths of 12mm x 2mm Steel Strip [Re-Order Ref: MC034]
 - 10 x 6mm x 3mm Rivets [Re-Order Ref: MC050L]
 - 4 x 10mm x 3mm Nuts & Bolts [Re-Order Ref: MC060L]
 - 4 x W1 Candle Holders [Re-Order Ref: MC068]
 - 4 x W1A Candle Holders [Re-Order Ref: MC069]
 - 2 x T42 Chunky Candle Tray [Re-Order Ref: MC955]

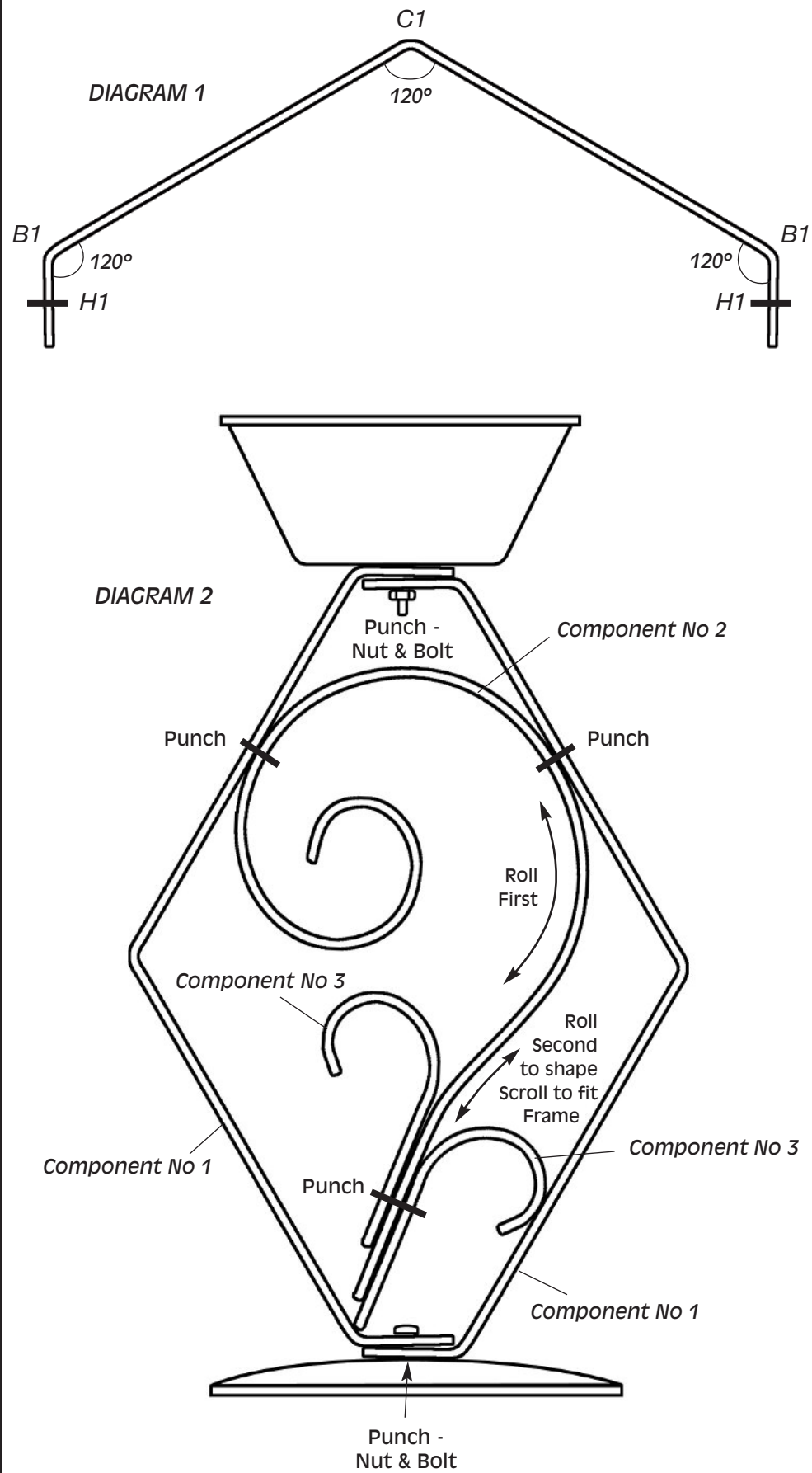
Candlestick 3 - TRIPLE



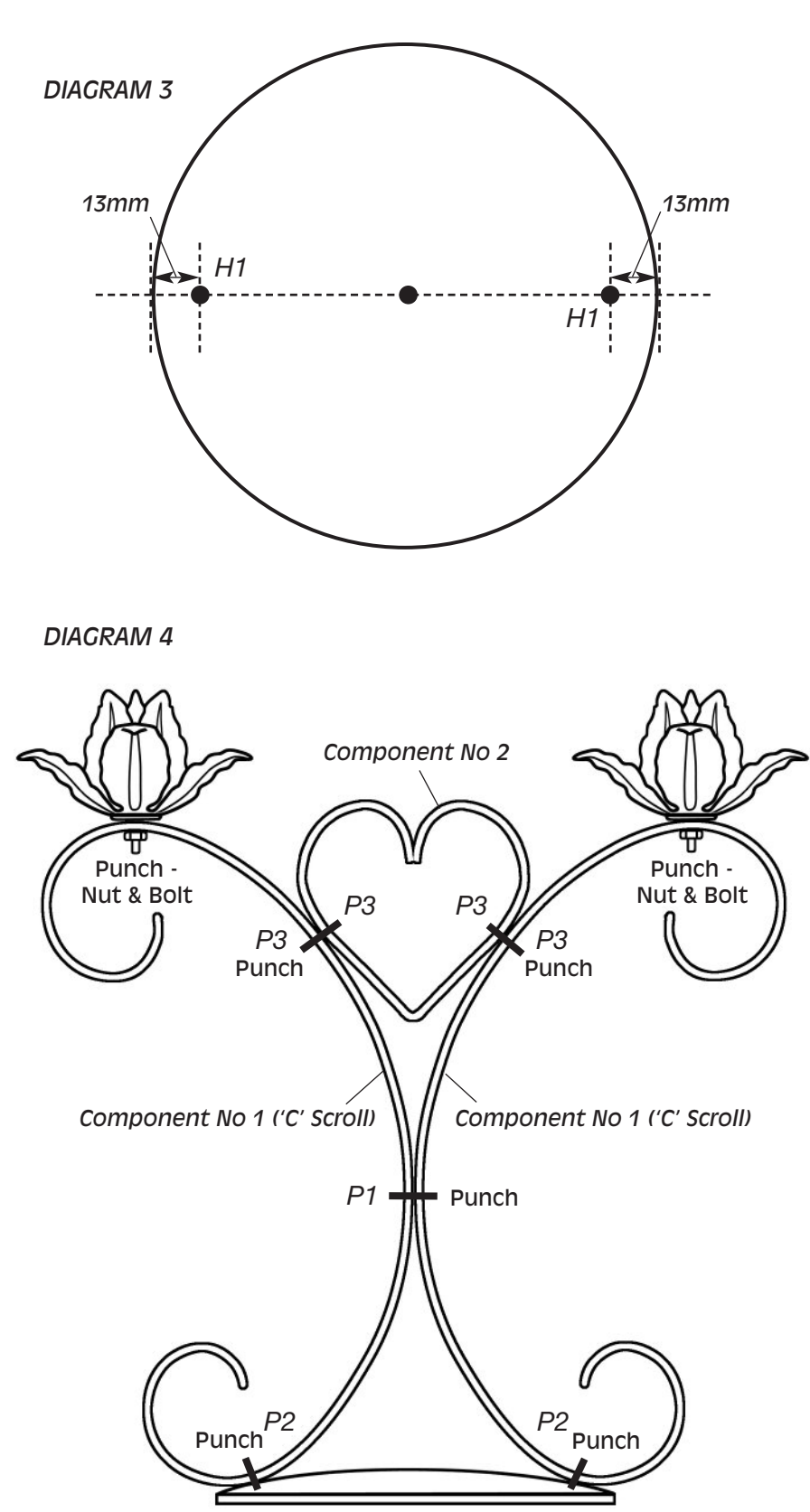
- List of Materials Required (to make a pair):**
- 2 x 914mm (3ft) Lengths of 12mm x 2mm Steel Strip [Re-Order Ref: MC034]
 - 2 x 6mm x 3mm Rivets [Re-Order Ref: MC050L]
 - 8 x 10mm x 3mm Nuts & Bolts [Re-Order Ref: MC060L]
 - 2 x W17 Candle Trays [Re-Order Ref: MC081]
 - 6 x W26 Candle Trays [Re-Order Ref: MC088]

Design Pack: CANDLE STICK SELECTION - DESIGN SHEET 2 - DIAGRAMS (NOT to scale)

Candlestick 1 - SINGLE



Candlestick 2 - DOUBLE (with heart)



Candlestick 3 - TRIPLE

