


NOT TO SCALE

MODIFICATIONS	6/95	10/01	08/08	
Segment Grab Screws P/N 368 replaced by P/N's 611 & 612.				MK 3/3 SCROLL FORMER Part No.22 (UK) Version No.2
Pressure roller rings P/N 463 replaced by P/N's 802 & 803				
P/N 468 replaced by P/N 872 and P/N 470. P/N 354 now has a separate nut fitted - (P/N 470)				 J & CR WOOD HULL ENGLAND

J & CR WOOD

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OPERATING INSTRUCTIONS



metalcraft™

MARK 3 / SERIES 3

SCROLL FORMER

PLUS OPTIONAL EXTRA
 TUBE BENDING
 COMPONENTS


J & CR WOOD
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MARK 3 / SERIES 3 SCROLL FORMER

Please keep these instructions in a safe place for any future reference to the parts diagrams.

IMPORTANT - Ensure all moving parts are regularly lubricated and all bolts kept tightened.

1 Before use, assemble the return lever (P/N 356) to the underside of the base. Fix the base level with the edge of the work bench top as shown in diagram 6.

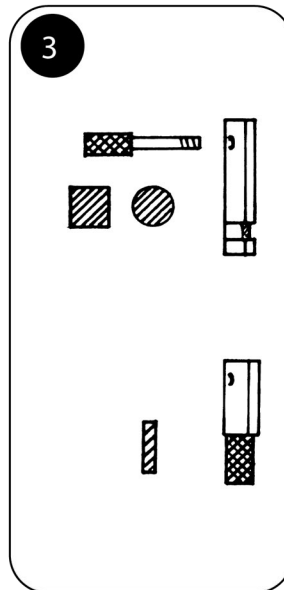
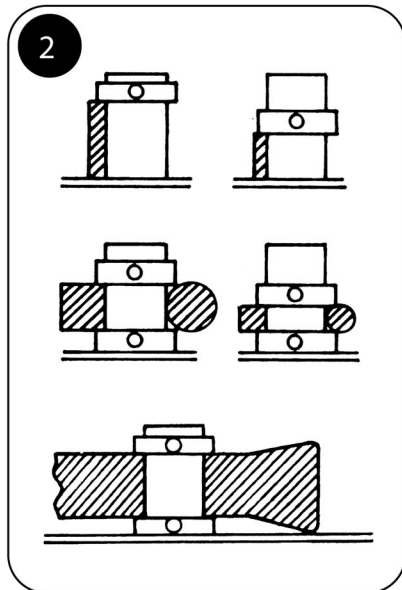
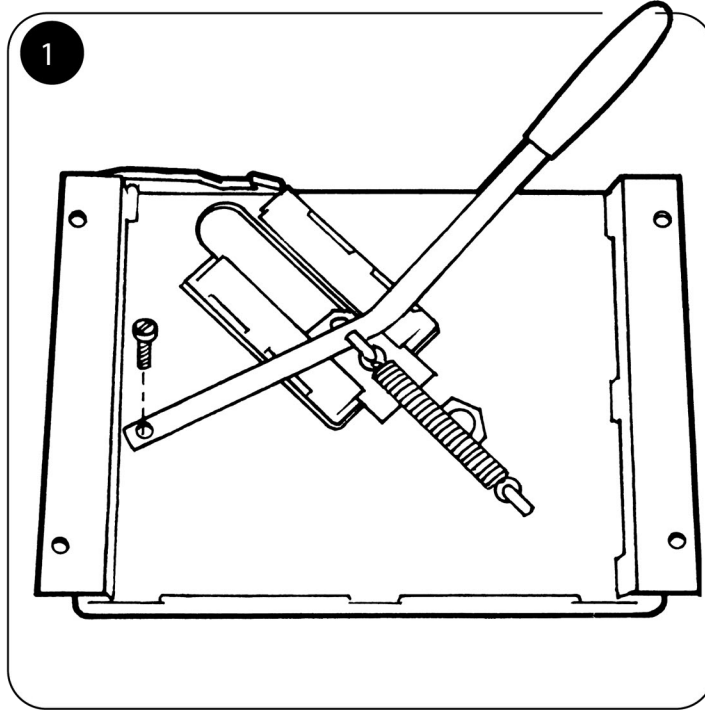
2 Fit the pressure roller (P/N 461) and select the correct positions of the pressure roller rings to suit the metal bar to be formed. Caution: To keep the finished scroll as flat as possible, ensure that the upper pressure roller ring is in contact with the top of the metal bar.

3 Select the correct locking bar to suit bar profile.

4 Select the shape of the scroll required. Use the pins (P/N 484) to connect the segments and screws (611 & 612) to finely adjust the overall shape. Caution: With some combinations of scroll former segments it is possible that the pressure roller will not move far enough along the base plate. Do not attempt to form a scroll beyond that point.

5 Use the pins (P/N 484) to connect the segments.

6 1. Open out the segments,
2. release lever,
3. insert the metal bar,
4. rotate locking bar clockwise.

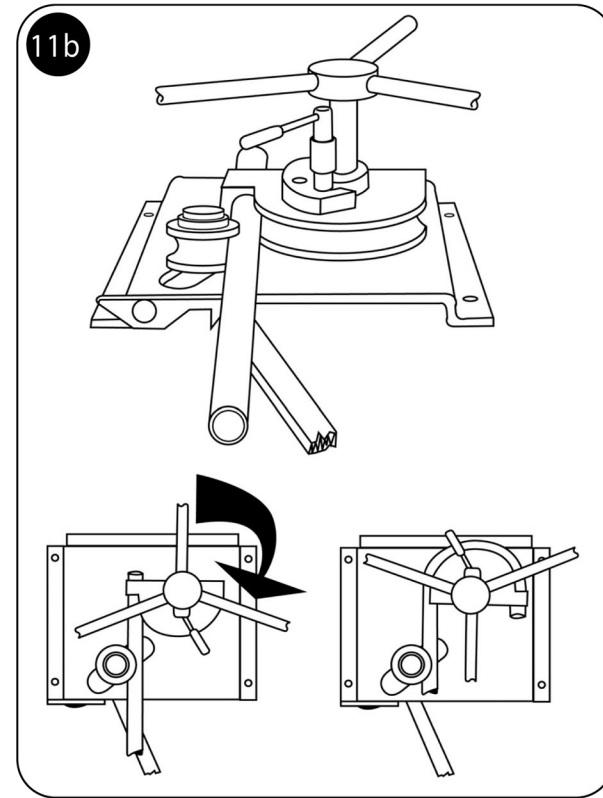
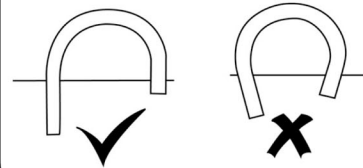


11b INSERTING AND FORMING THE TUBE

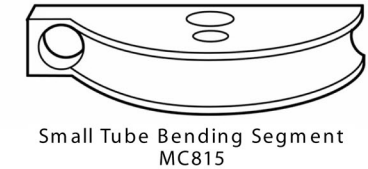
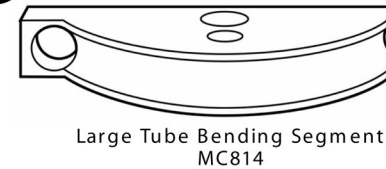
Locate end of tube into aperture of Tube Bending segment and with pressure roller lever released align with concave pressure roller as shown here.

Rotate three main handles in clockwise direction to draw tube into machine and create bend as required. When complete lock pressure roller lever and release tube.

IMPORTANT NOTE ∅ Ensure bend does not go beyond 180° to avoid problems releasing material after the tube is bent



11c TUBE BENDING COMPONENTS TO FIT THE MK3/3 SCROLL FORMER



IMPORTANT - components are available as optional extras and not necessarily supplied as standard with each Mk 3/3 Scroll Former

SPECIFICATIONS: TUBE BENDING COMPONENTS - Mk. 3/3 Scroll Former

Maximum Tube Dimensions	20mm O/D
Recommended Wall Thickness	1.5 - 2mm
Diameter of Small Tube Bending Segment (inner diameter of formed tube)	79mm
Diameter of Large Tube Bending Segment (inner diameter of formed tube)	128mm

The information shown is for guidance only and is based upon the use of ERW Mild Steel Tube to the dimensions shown - should materials of a different specification or dimension be chosen by the user then we strongly recommend that a test bend is carried out prior to commencing the project proper as we cannot guarantee or be held responsible for the outcome.

11a TO FIT OPTIONAL TUBE BENDING COMPONENTS

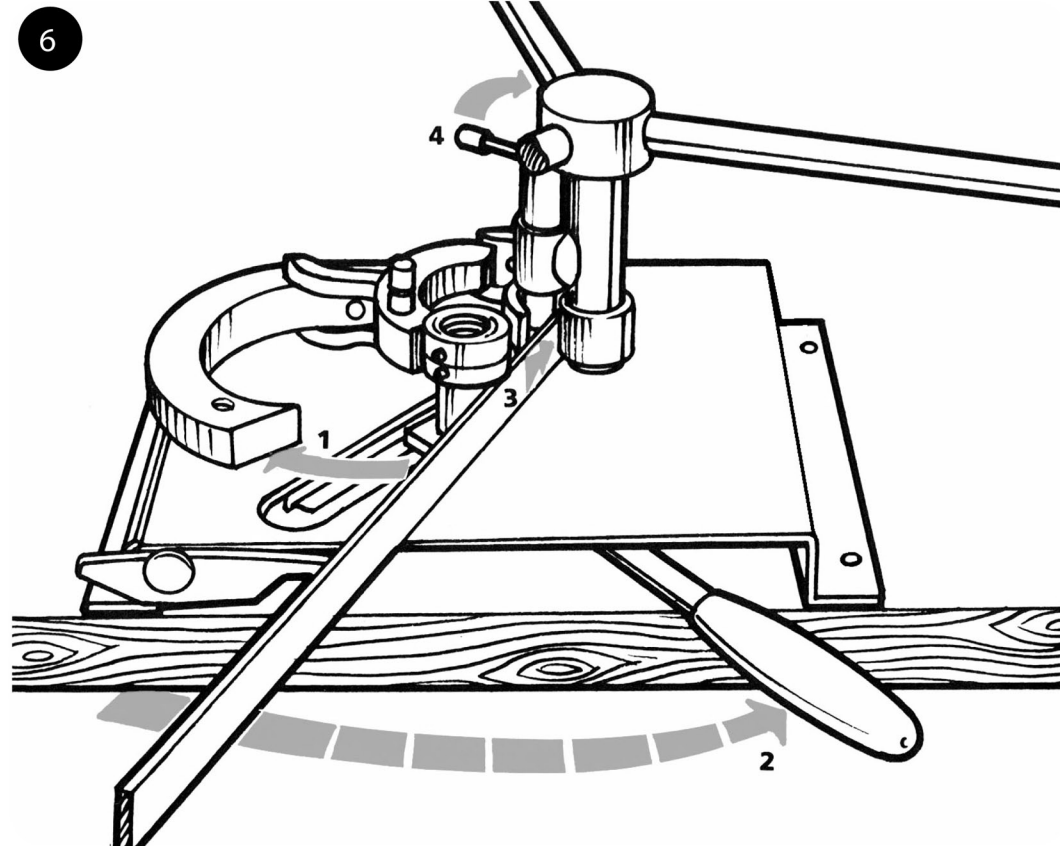
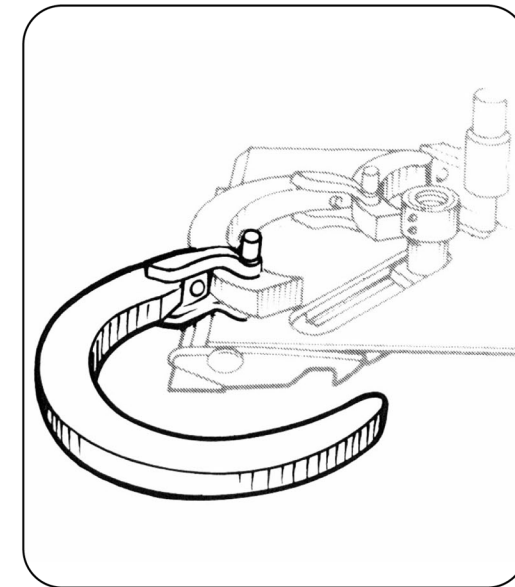
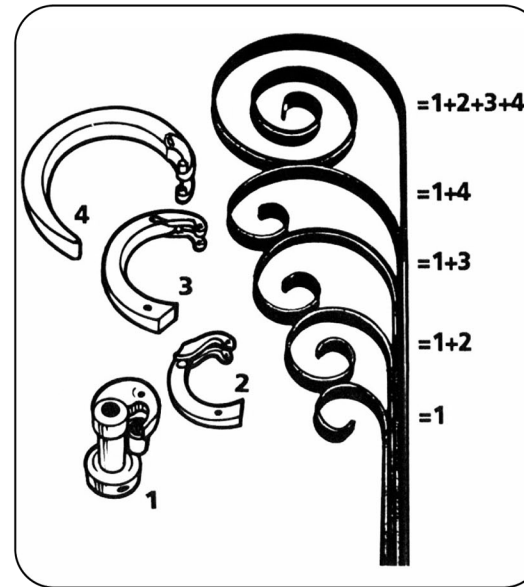
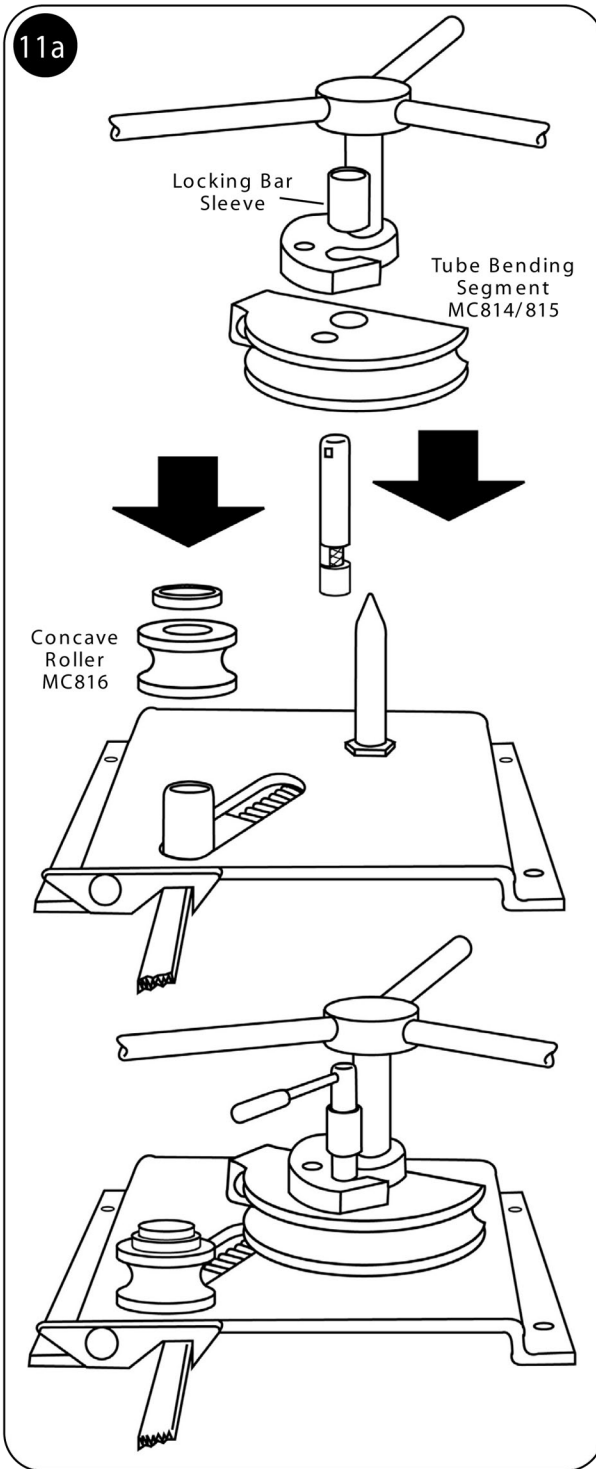
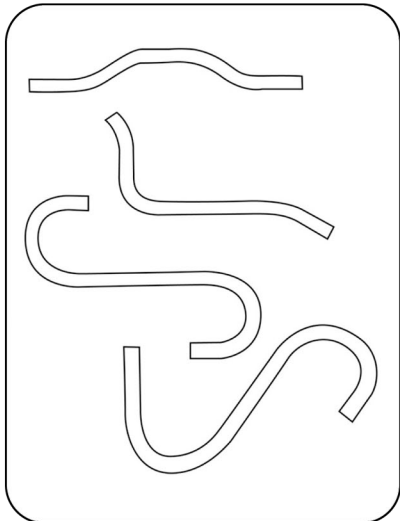
First remove central handle and scroll segment assembly from the Scroll Former base and remove all pivoted scroll forming segments.

Drop preferred Tube Bending Segment over Pivot Pin on Scroll Former base. Note \varnothing the hole in the segment which the pivot pin goes through is countersunk on one side. This countersunk side should be on the bottom face of the segment with the plain hole facing upwards.

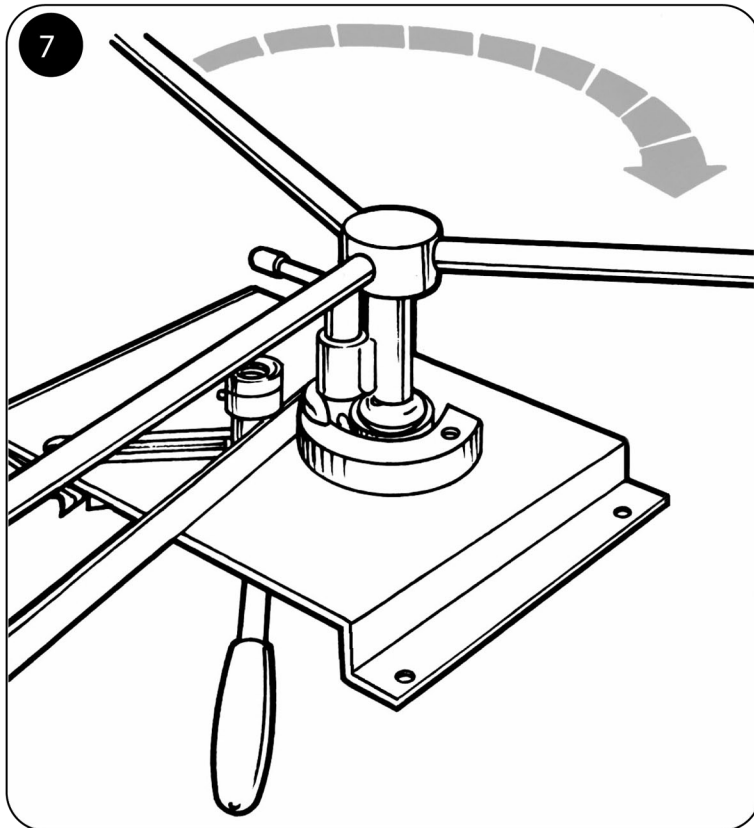
Then remove handle from the slotted locking bar used for gripping square and round bars and place this in the other hole in the Tube Bending segment. Carefully lower the central handle and scroll segment assembly carefully aligning its centre cut out and locking bar sleeve with the locking bar located in the Tube Bending segment.

Finally, remove spacer rings from the pressure roller post and replace with the concave roller and secure in position using the spacer ring with the grub screw.

The tool is now ready to bend tube to a variety of profiles as shown in the examples below.

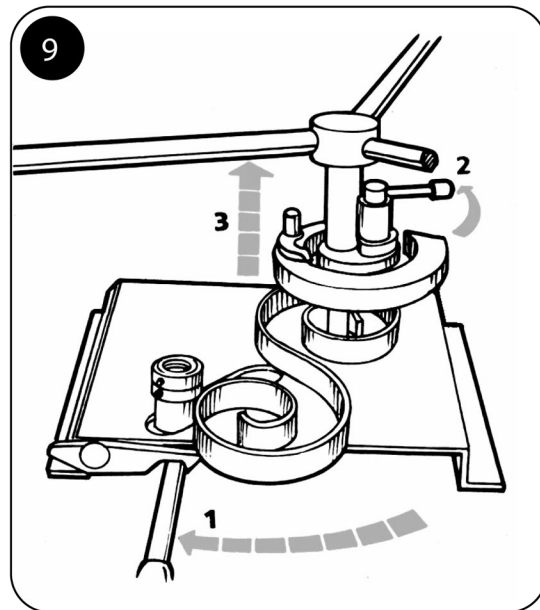
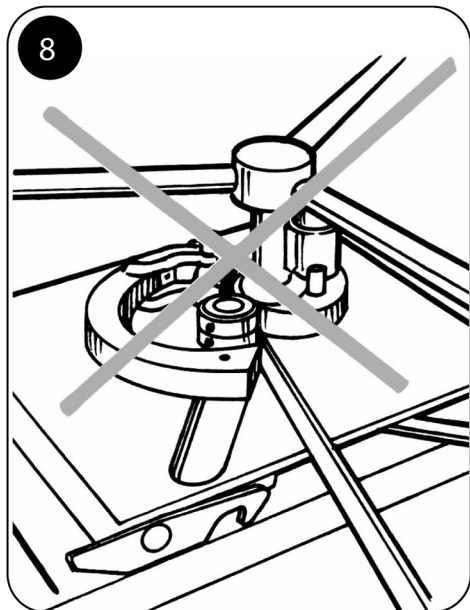


7 By rotating the three large handles in a clockwise direction the scroll will be formed.



8 Do not allow the ends of the segments to hook around the pressure roller during scroll forming because it will cause damage to the machine.

9 To release the finished scroll
 1. pull back the return lever,
 2. rotate the locking bar anti-clockwise and
 3. lift the complete segment assembly.



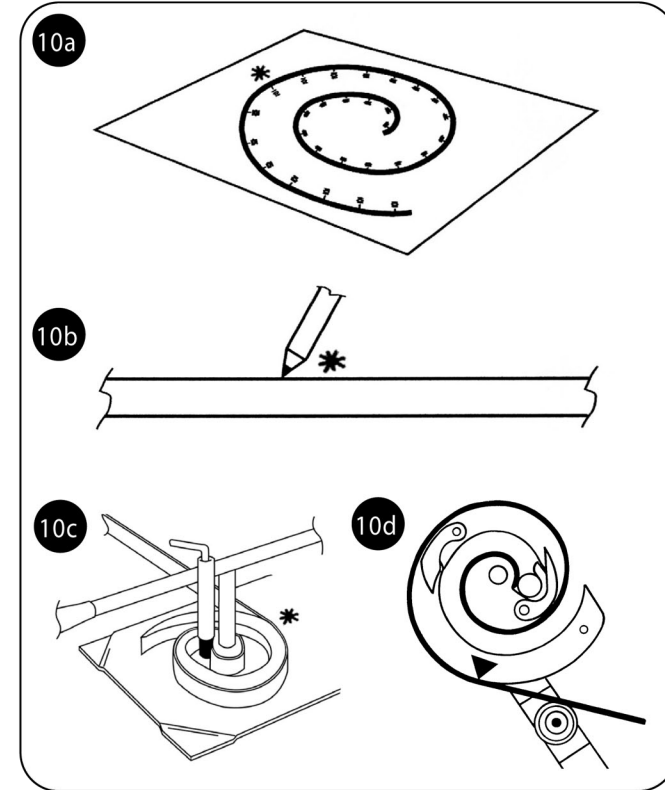
10 CALCULATING THE LENGTH OF MATERIAL REQUIRED TO MAKE A SCROLL OF A CERTAIN SIZE

10a Use Scroll Former Outlines Guide supplied to identify preferred scroll size and corresponding material length required. Sizes are approximate due to varying temper (springiness) of material used.








10b Measure required bar length and mark bar accordingly.

10c Form scroll carefully until mark on bar touches the edge of a segment to achieve required scroll size.

10d Use triangular magnetic marker on scroll former segments to identify end of scroll for consistently repeatable scrolls (remembering to grip the end of bar in the machine with the locking bar at the same point each time)



SPECIFICATION TABLE

MAX. SECTION	MIN. SCROLL SIZE (No. 1 Segment only)	MAX. SCROLL SIZE (No. 1, 2, 3 + 4 segment)
 25x5mm	 75mm	 210mm
 10mm  10mm	 85mm	 210mm
LENGTH OF MATERIAL IN SCROLL	165m m	1000m m

NOTE

1) These sizes are for Hot Rolled Black Mild Steel Bar & Annealed Bright Mild Steel Bar.

2) Working beyond the capacities stated above or with materials of greater strength or hardness will reduce the operational life of the machine.

3) The maximum scroll size may vary due to the temper (spring) of the steel.