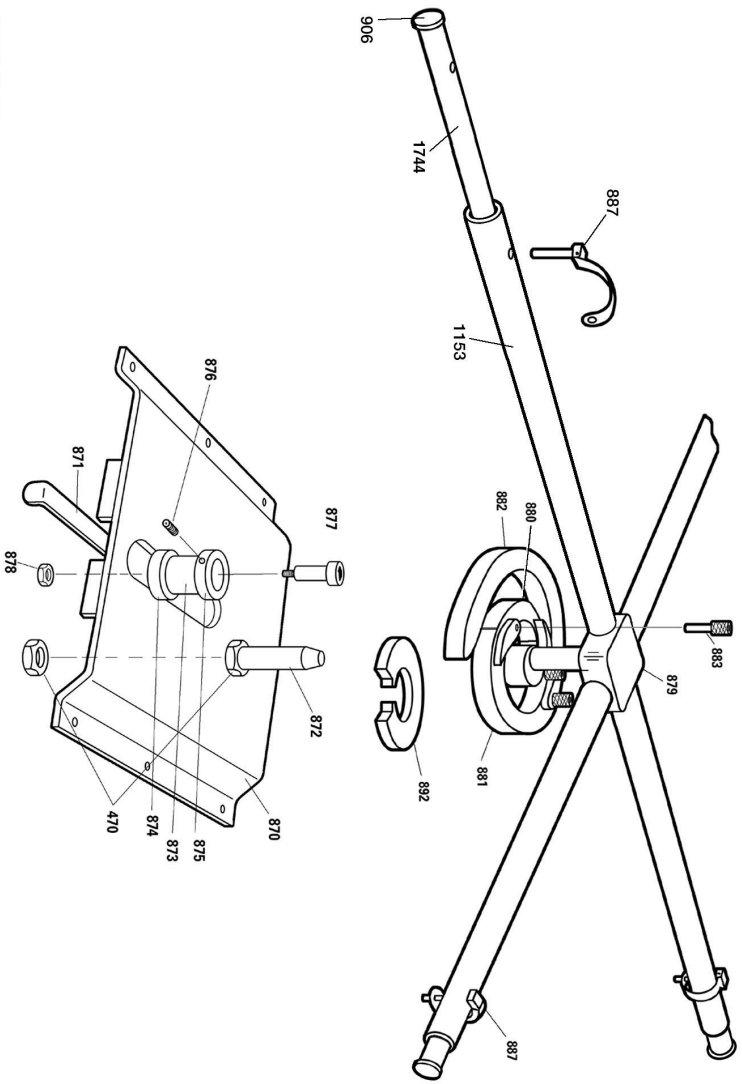
MODIFICATIONS	
HANDLES CHANGED: PN1153 was 884 PN1744 was 885 PN906 was 886	01/2013

NOT TO SCALE



MK 3/4 SCROLL FORMER
Part No. 25 Version No.1

REF:

DTP: Spd34.ppp

DATE: 03/04

J&CR WOOD
HULL, ENGLAND

J&CR WOOD

66 CLOUGH ROAD, HULL HU5 1SR • TEL: 01482 345067 • FAX: 01482 441141
email: info@jandcrwood.co.uk • www.metal-craft.co.uk

Issue No. 1
29/06/06

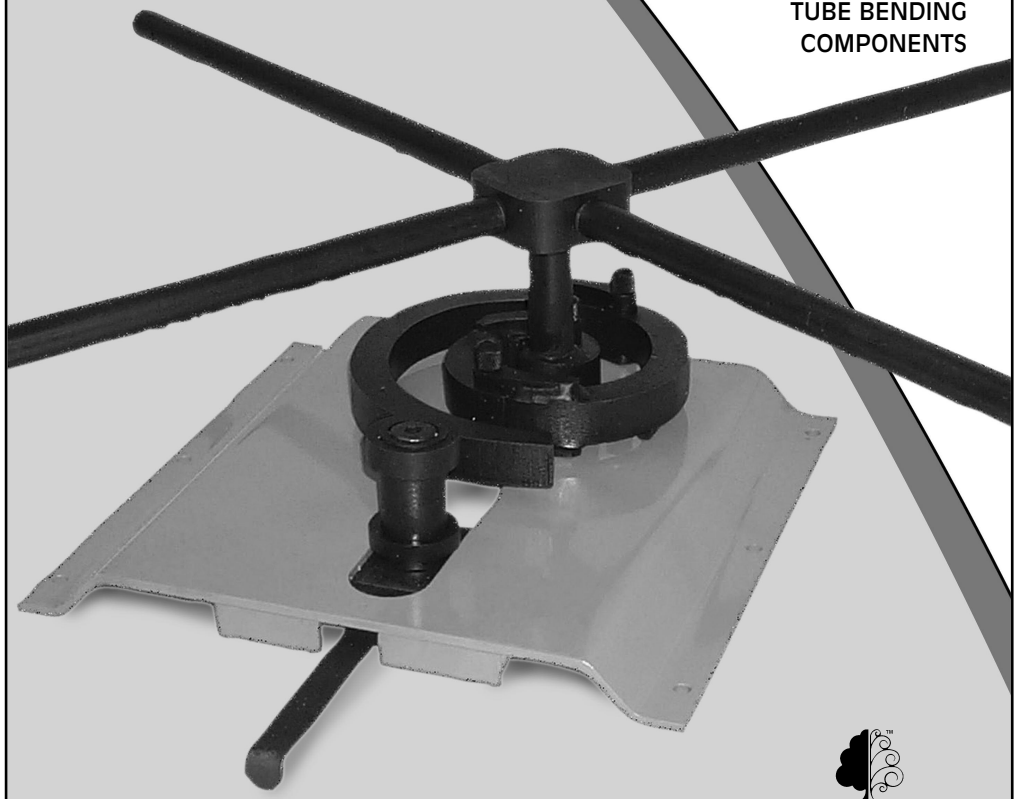
OPERATING INSTRUCTIONS

metalcraft™

MARK 3 /SERIES 4

SCROLL FORMER

PLUS OPTIONAL EXTRA TUBE BENDING COMPONENTS



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MARK 3 / SERIES 4

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 Bolt the base to a strong table.

2 Adjust the pressure roller rings to suit the type of bar to be used. The upper ring must be fixed in position using the small screw and socket key. For bars of less than 20mm wide you must place the spacer ring (S) over the pivot pin. IMPORTANT - ensure that the lower link of the segment fits into the gap of the spacer.

3 Select the shape of the scroll required. It is important that for working bar of 12mm and thicker, the #2 segment must be fitted to the #1 segment.

4 a) Open out the selection of segments as shown.
b) Push the handle of the slide so that the pressure roller is at the end of the slot.
c) Push the bar into the centre section to the correct gripping location. See section 5.

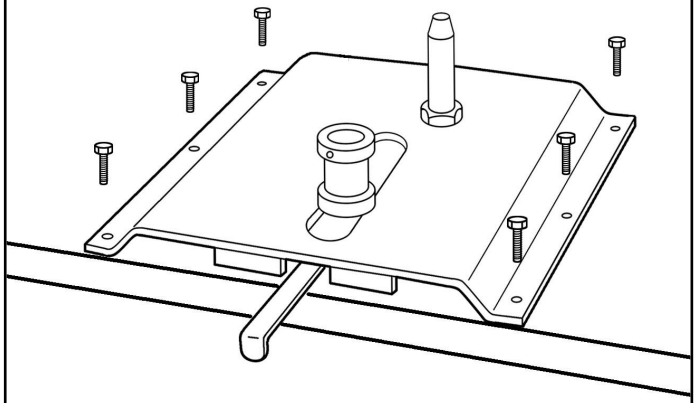
5 Select the correct gripping location. The bar will automatically lock in position when the main handles are rotated.

6 For strong bars, extend the handle tubes and fix with the locking pins.

7 WARNING - As you rotate the main handles in a clockwise direction, do not allow the end of the segment to hook around the pressure roller because it will cause damage to the machine.

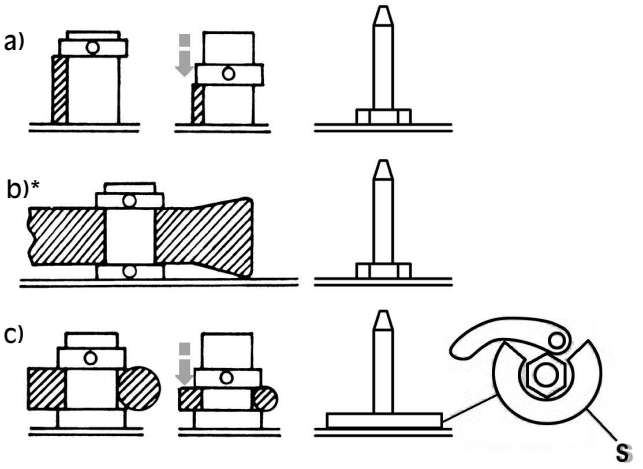
8 When the desired scroll shape is formed, it can be removed by lifting the assembly of segments up or by simply lifting the scroll.

1



2

a) Flat bar more than 20mm wide
b) Flat bar with forged ends
* See Section 10 for details of how to flatten the ends for best results.
c) Any bar less than 20mm wide

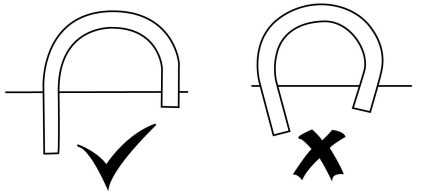


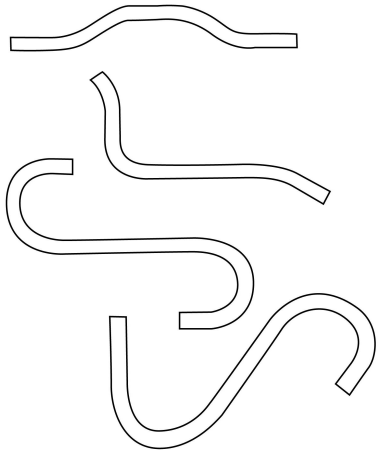
12 INSERTING AND FORMING THE TUBE

Locate end of tube into aperture of Tube Bending segment and with the pressure roller as far forward as possible, align with concave pressure roller as shown in 11a.

Rotate four main handles in clockwise direction to draw tube into machine and create bend as required. When complete draw back presssure roller and release tube

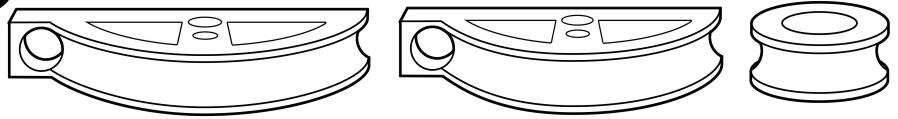
IMPORTANT NOTE – Ensure bend does not go beyond 180° to avoid problems releasing material after the tube is bent





The tool can be used to bend tube to a wide variety of profiles.

12b TUBE BENDING COMPONENTS TO FIT THE MK3/4 SCROLL FORMER



Large Tube Bending Segment MC1126

Small Tube Bending Segment MC1127

Concave Roller MC1128

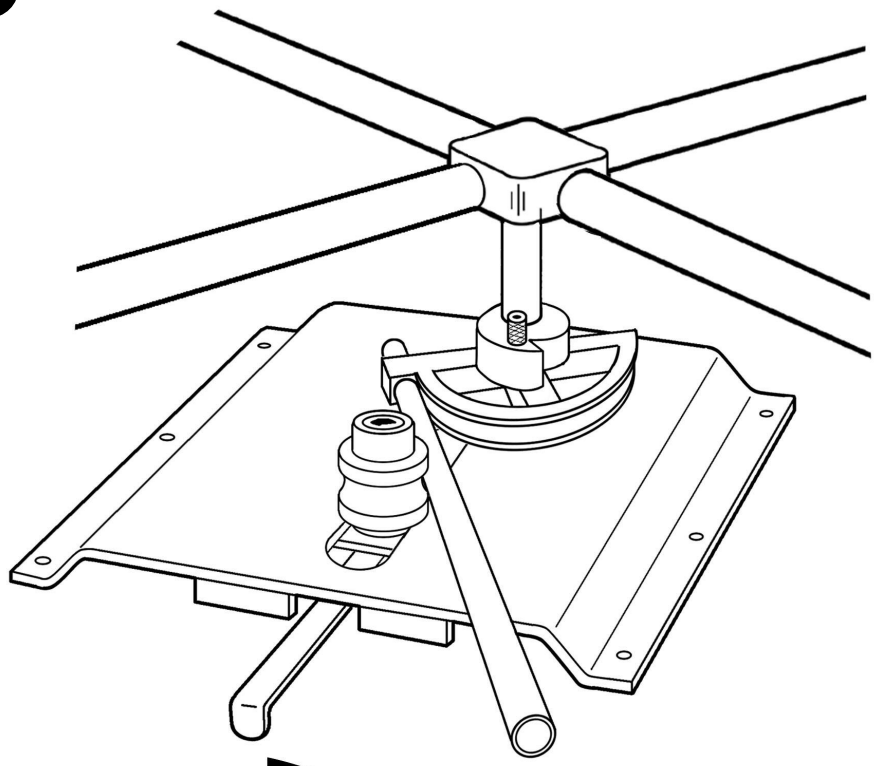
IMPORTANT - components are available as optional extras and not necessarily supplied as standard with each Mk 3/4 Scroll Former

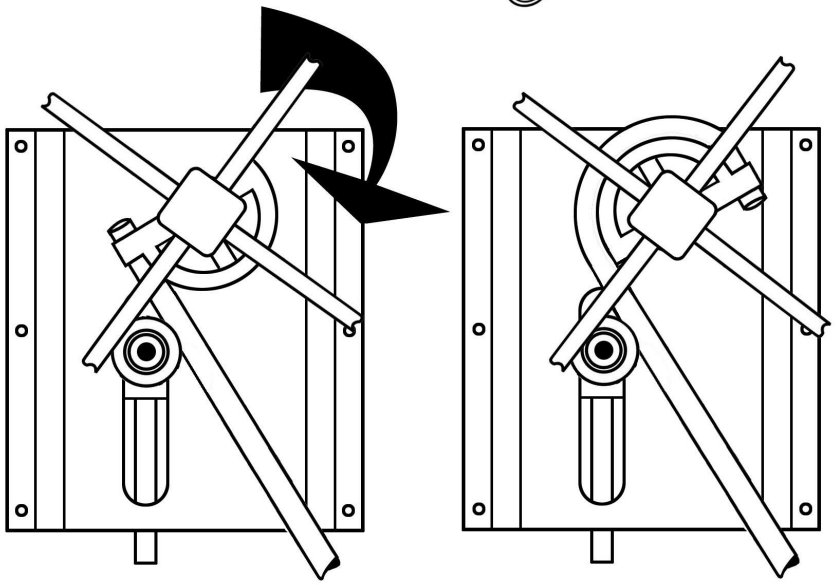
SPECIFICATIONS: **TUBE BENDING COMPONENTS - Mk. 3/4 Scroll Former**

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

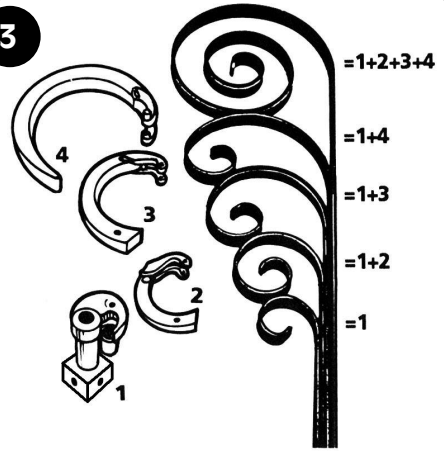
The information shown is for guidance only and is based upon the use of ERW Mild Steel Tube to the dimensions shown - should materials of a different specification or dimension be chosen by the user then we strongly recommend that a test bend is carried out prior to commencing the project proper as we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

12a

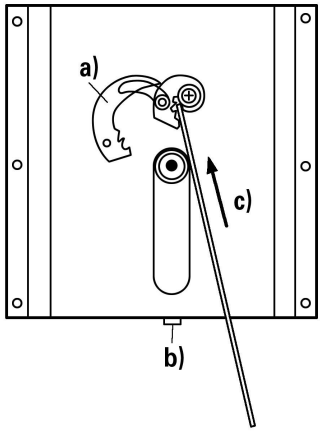




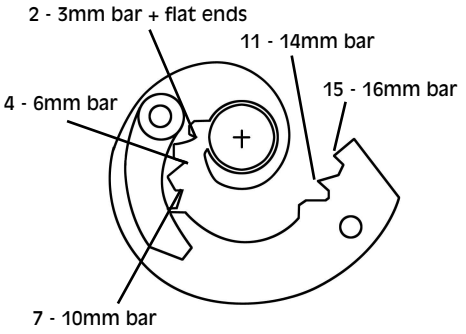
3


=1+2+3+4
=1+4
=1+3
=1+2
=1
4
3
2
1

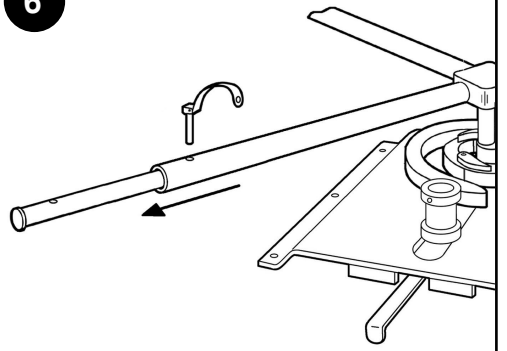
4


a)
b)
c)

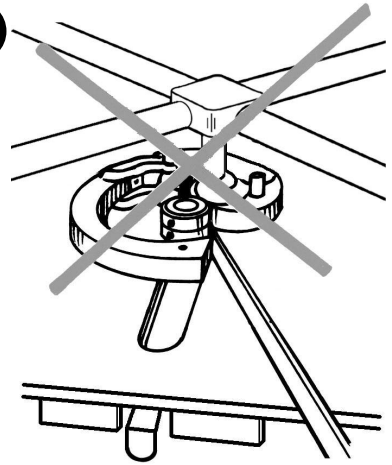
5


2 - 3mm bar + flat ends
11 - 14mm bar
15 - 16mm bar
4 - 6mm bar
7 - 10mm bar

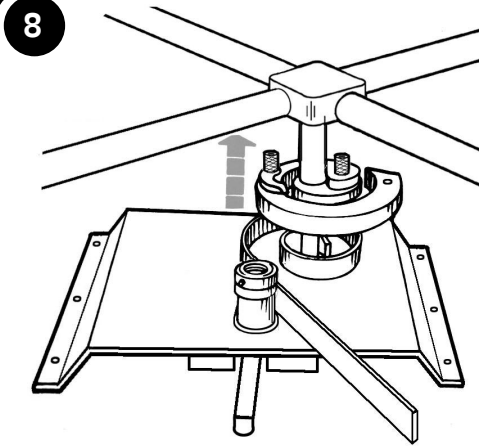
6



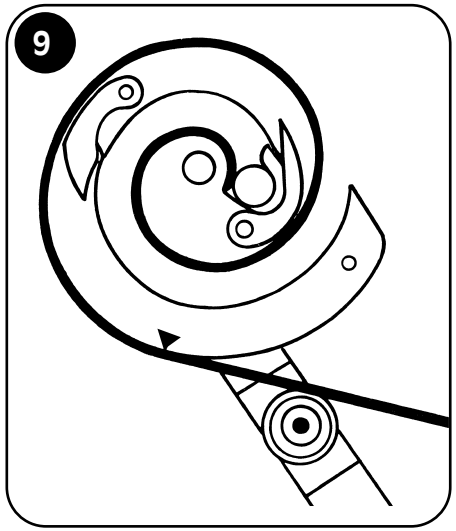
7

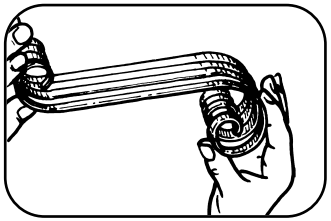


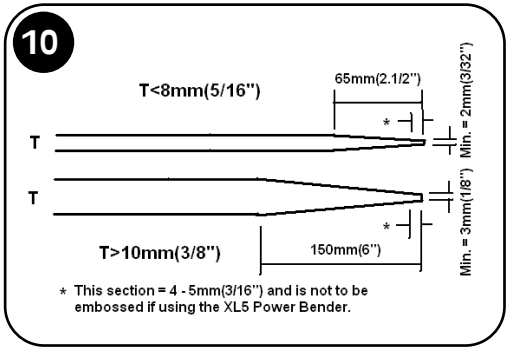
8



9 To reproduce a scroll, simply place a marker on the top surface of the scroll former segment at the place where the bar leaves the edge.







In order to scroll material with forged ends, the bar needs to be tapered in accordance with the guidelines provided here.

SPECIFICATION TABLE

MAX. SECTION	MIN. SCROLL SIZE (No. 1 Segment only)	MAX. SCROLL SIZE (No. 1, 2, 3 + 4 segment)
50 x 6mm	60mm	250mm
25 x 10mm	80mm	250mm
14 x 14mm	120mm	260mm
16 x 16mm (HOT)	120mm	265mm

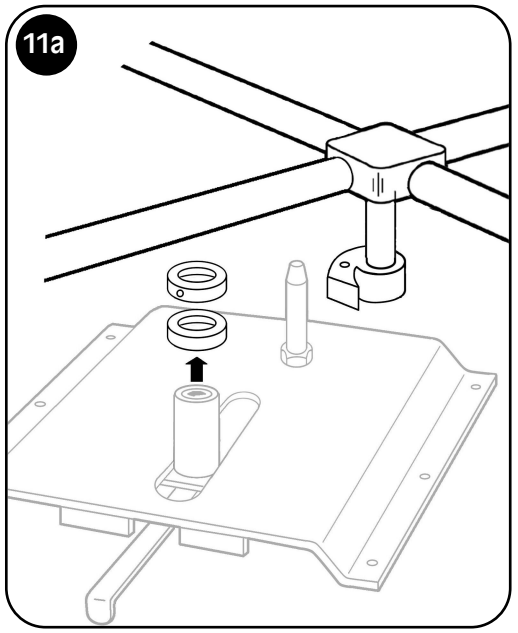
NOTE

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

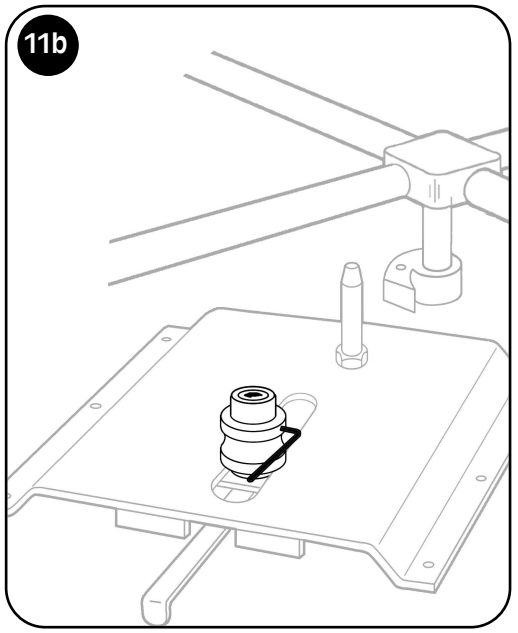
2) Working beyond the capacities stated above or with materials of greater strength or hardness will reduce the operational life of the machine.

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

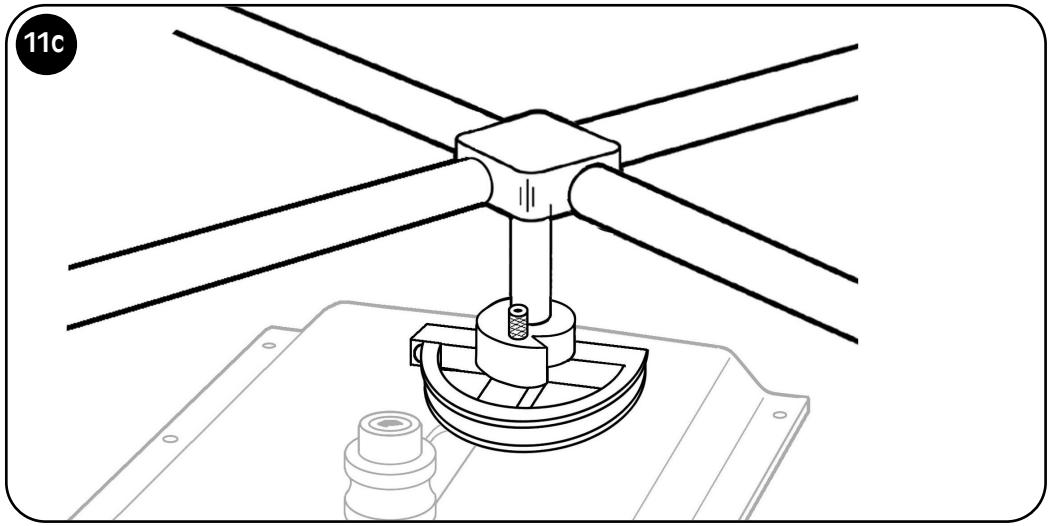
11 To Fit Optional Tube Bending Components



Lift the complete capstan assembly from the central pivot pin and remove any segments that maybe attached to the Centre Segment (#1). Next remove the two spacer rings from the pressure roller. Finally ensure that the pivot pin spacer ring is removed.



Fit the Concave Roller and position the Upper Spacer Ring on top.



Place the Tube Bending Segment over the Pivot Pin. Replace the complete Capstan Assembly and align Pin Hole with the Pin Hole in the Tube Bending Segment - then insert Hinge Pin to integrate both components.