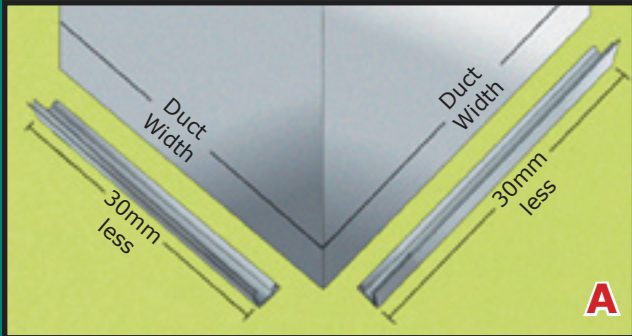




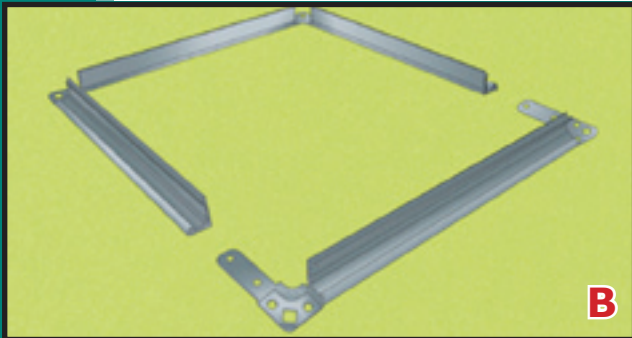
## Ecoflange Duct Joining Systems

### Cutting the Ecoflange



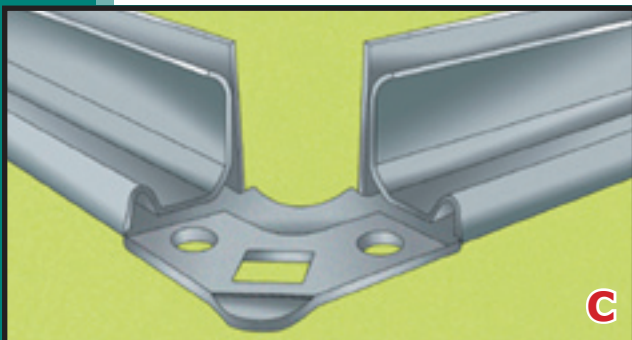
Cut four lengths of Ecoflange ensuring that no swarf contaminates the sealant - each piece should be 30mm shorter (for BS15 cut the lengths 35mm shorter) than the finished duct size required. The duct dimensions should be calculated from the outside edges as shown in drawing A.

### Forming the Frame



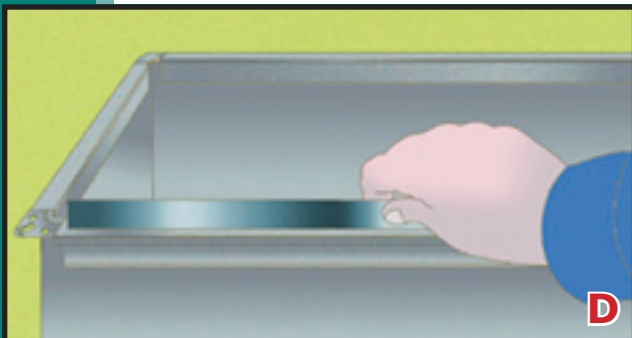
Insert 4 corner pieces into the Ecoflange to form a rectangular or square frame as shown in drawing B.

### Forming the Frame



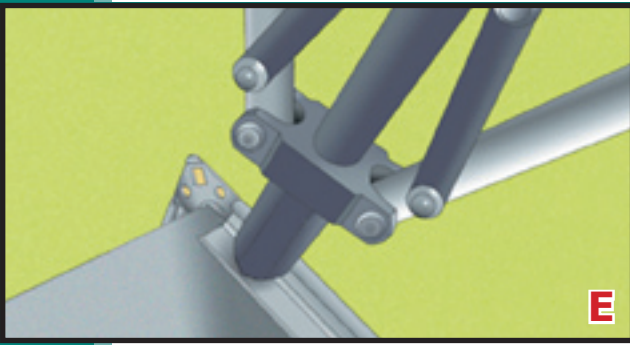
Ensure the corners are fully inserted into the Ecoflange. It is imperative to ensure that the over pressed part of the corners meet as indicated in drawing C. For even greater rigidity the corners can be dimpled into the Ecoflange by use of a press tool (not BS15).

### Fitting the Frame to the Duct



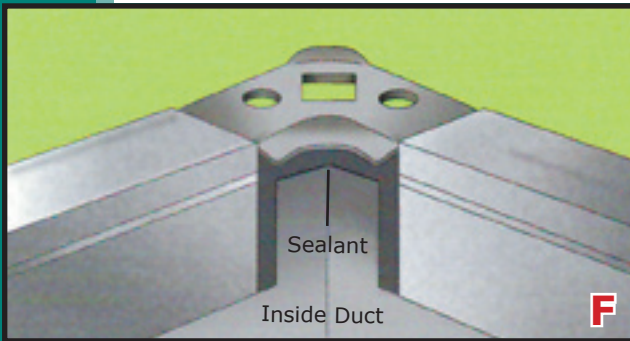
Starting in one corner, the frame should be pressed on to the duct then firmly driven home with a soft mallet, ensuring that no damage is done to the actual Ecoflange face. On larger ducts it is recommended that a straight edge be used to ensure the frame is 'flat' on the duct - see drawing D.

## Fixings



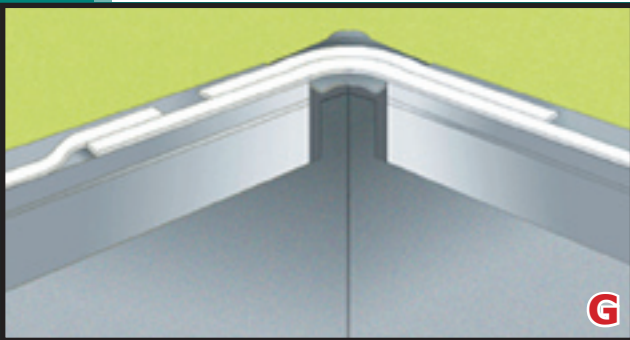
There are several acceptable methods of fixing the Ecoflange to the duct, the most common are welding, stitching, riveting or self tapping screws. For further reference see DW144 (10.7 page 16 and page 24 table 5). To help prevent metal spring during erection of the ductwork, it is recommended that the first and last fixings should be no more than 50mm from the corner. If riveting, all three layers should be clamped and any burrs and swarf removed. Any method of fixing that requires the piercing of the Ecoflange or duct must be correctly sealed before commissioning - see drawing E.

## Gasket Seals between Ducts



The Duct, corner and Ecoflange should be sealed on the inside of the duct, as shown in drawing F.

## Sealing the Duct



Appropriate sizes of gasket strip should be used. Drawing G shows application for high pressure.

## Notes:

- i)** For 15mm flange gasket size 9x4.5mm
- ii)** For 20mm flange gasket size 9x4.5mm
- iii)** For 30mm flange gasket size 9x4.5mm
- iv)** For 40mm flange gasket size 15x4.5mm
- v)** For large ducts intermediate fixings should not exceed 400mm
- vi)** Any mastic applied should be allowed to fully cure in line with the manufacturers recommendations prior to the system being pressurized for use
- vii)** Gaskets should be applied as the last operation prior to fixing duct in place
- viii)** It is recommended that safety gloves are worn when handling metal products. When manufacturing the duct and Ecoflange all necessary protection should be worn to conform to C.O.H.S.E. regulations

# COMPONENT SPECIFICATION

	<b>Gauge ( mm )</b>	<b>Weight ( kg/m )</b>
BS15	0.70	0.402
BS20	0.80	0.550
BS30	1.00	0.895
BS40	1.25	1.380
Sealant	Scapa Acrylic Emulsion 0102	
Tape	Scapa Tape 3259	

## Steel Specification

Flange, turning vane and track to BS EN 10142:1991:Fe PO2 G Z275. Corners, clamps to HR4. Zinc plated to BS 1706:1990

## Packing Details

<b>Ecoflanges</b>	<b>Weight ( kg ) per pack</b>	<b>Lengths per Pack</b>
BS15	100.50	50
BS20	137.50	50
BS30	223.75	50
BS40	345.00	50

<b>Components</b>	<b>Weight ( kg ) per pack</b>	<b>Quantity per Box</b>
BS15S Short Corner	5.80	200
BS15 Standard Corner	10.80	200
BS20S Short Corner	6.80	200
BS20 Short Corner	10.80	200
BS21S Short/Through Corner	4.00	200
BS21 Through Corner	10.80	200
BS30 Standard Corner	9.00	100
BS31 Through Corner	9.00	100
BS40 Standard Corner	16.00	100
BS41 Through Corner	16.00	100
Cleat BS15/20	5.80	200
Cleat BS30	6.20	200
Clamp Standard	6.20	100
Clamp for BS15	4.00	200

<b>Accessories</b>	<b>Weight ( kg ) per pack</b>	<b>Quantity per Pack</b>
Turning Vane	18.56	10
Track	11.77	10