

# Recommendations for folding

## Recommendations for drilling, punching and cutting

### CUTTING

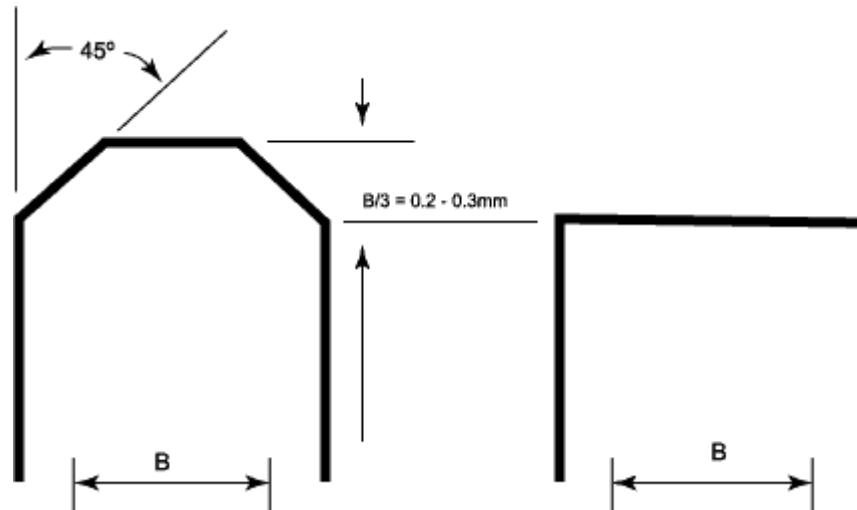
Copper-Clad Aluminium (CCA) busbar can be cut using methods that apply to aluminium. Grinding of cut saw to a trapezoidal shape gives good results and deburring is not necessary.  
Cutting speed: 50-90 m/sec Lubricant and coolant white spirit.

### DRILLING

Recommended drill characteristics: Drill cutting angle Cutting speed: 50m/min Cutting tool angle: 135°-140° Helix angle: 45° Lubricant and coolant white spirit.

### PUNCHING

The punching tool should be designed in the same way as for use with flat copper bars. It is important that the die should give adequate support as near as possible to the shearing edge.



N.B. Above factors are for bending normal to the plane. For edge bending the forming tool radius should be multiples of the width w.				
Recommended radius of forming tool				
Thickness t	Width w	$\leq 90^\circ$	$90^\circ - 120^\circ$	$> 120^\circ$
$t \leq 3$	25 – 10	1t	1t	1t
$3 < t \leq 5$	16 – 60	1t	2t	4t
$5 < t \leq 6,3$	12 – 50	1t	2t	4t
	50 – 120	2t	3t	4t
$6,3 < t \leq 10$	10 – 120	2t	3t	4t
$10 < t \leq 15$	40 – 120	2t	3t	4t