

BEMO Curving Guidelines – Curves & Custom Applications

EXTREME FLEXIBILITY

Convex, concave or even “S” curves can be easily and efficiently accommodated by the BEMO System. The BEMO panels can be curved by means of a specially developed rolling mill that can curve the BEMO panels smoothly to a radius as tight as 14 feet or less, depending on the profile and material used.



BEMO 305 & 400 Convex Lay-down Curves

Minimum Panel Radius without mechanical curving

Aluminum		Steel	
Thickness	Min. Radius	Gauge	Min. Radius
.032	125 ft	24 ga	175 ft
.040	135 ft	22 ga	215 ft
.050	145 ft	20 ga	250 ft

Zinc		Copper	
Thickness	Min. Radius	Wt./Sq. Ft.	Min. Radius
0.8 mm	175 ft	16 oz	175 ft
1.0 mm	185 ft	20 oz	185 ft
1.25 mm	200 ft	24 oz	200 ft

BEMO 305 Convex Mechanical Curves

Minimum Panel Radius with mechanical curving

Aluminum		Steel	
Thickness	Min. Radius	Gauge	Min. Radius
.032	17 ft	24 ga	32 ft
.040	12 ft	22 ga	32 ft
.050	10 ft	20 ga	32 ft

Zinc		Copper	
Thickness	Min. Radius	Wt./Sq. Ft.	Min. Radius
0.8 mm	30 ft	16 oz	25 ft
1.0 mm	30 ft	20 oz	22 ft
1.25 mm	30 ft	24 oz	15 ft

BEMO 305 & 400 Concave Mechanical Curves

Minimum Panel Radius with mechanical curving

Aluminum		Steel	
Thickness	Min. Radius	Gauge	Min. Radius
.032	18 ft	24 ga	33 ft
.040	13 ft	22 ga	33 ft
.050	12 ft	20 ga	33 ft

Zinc		Copper	
Thickness	Min. Radius	Wt./Sq. Ft.	Min. Radius
0.8 mm	25 ft	16 oz	33 ft
1.0 mm	18 ft	20 oz	30 ft
1.25 mm	16 ft	24 oz	20 ft

BEMO 400 Convex Mechanical Curves

Minimum Panel Radius with mechanical curving

Aluminum		Steel	
Thickness	Min. Radius	Gauge	Min. Radius
.032	30 ft	24 ga	40 ft
.040	20 ft	22 ga	40 ft
.050	15 ft	20 ga	40 ft

Zinc		Copper	
Thickness	Min. Radius	Wt./Sq. Ft.	Min. Radius
0.8 mm	27 ft	16 oz	33 ft
1.0 mm	20 ft	20 oz	30 ft
1.25 mm	18 ft	24 oz	20 ft

General Design and Manufacturing Guidelines:

- BEMO recommends that the Technical Services Group be consulted on all curved applications. The curving capabilities listed above are to be used as general guidelines only.
- Panel widths: BEMO 305mm (12"), 400mm (15 3/4") and 500mm (19 3/4")
- For curved panels: Aluminum 3105 H14, Steel Grade 33 and Copper 1/4 to 1/2 hard.
- For information on curving BEMO 500mm please consult BEMO 1-800-926-2366.

Painted Material Curving Considerations:

- On radii less than 35' (10.5 meters) the backside of the BEMO panel may exhibit paint marring induced during the curving process.
- On radii less than 50' (16.6 meters) steel panels may exhibit a slight “dishing” effect within 6" to 12" of the end of each curved panel. These ends can be field cut if required, providing the extra length estimated originally for the project. In most applications the “dishing” effect is not objectionable.
- Embossed materials on radii less than 25' (8.3 meters) the top of the material may have visible marring from the curving process.