CURVED VIDEO WALL GUIDELINES

The ConnexSys™ LVSXU is UL listed for use in certain curved video wall applications – but how do you know if your install fits the criteria? Use this guide to determine if ConnexSys is a good match for your curved wall installation. For comprehensive guidelines on mounting the LVSXU please reference the installation manual.

Strut Channel & Curve Radius Requirements

ConnexSys is compatible with curved walls built in a radius of 200″ (5.08 m) or greater. The strut channel material being used should also follow the guidelines listed in the chart below

	STRUT CHANNEL MATERIAL	
	Aluminum	Steel
Minimum Wall Radius	Greater than 200″ (5.08 m)	Greater than 400″ (10.16 m)
Minimum Yield Strength	30 ksi (207 MPa)	33 ksi (230 MPa)
Material Thickness	0.078" (2 mm)	14 ga – 0.075″ (2 mm) or 12 ga – 0.104″ (2.5 mm)
Strut Channel Depth	13/16″ (21 mm) or 7/8″ (22 mm)	
Flange Length	1/4 - 9/32″ (6-7 mm)	

Calculating the Wall Radius

1. Place a rigid, flat stick or strut channel (at least 3 ft or 1 m long – preferably longer) against the curved wall as shown in the example below. Do NOT bend the stick or strut.

2. Measure the largest gap between the stick or strut and the wall.
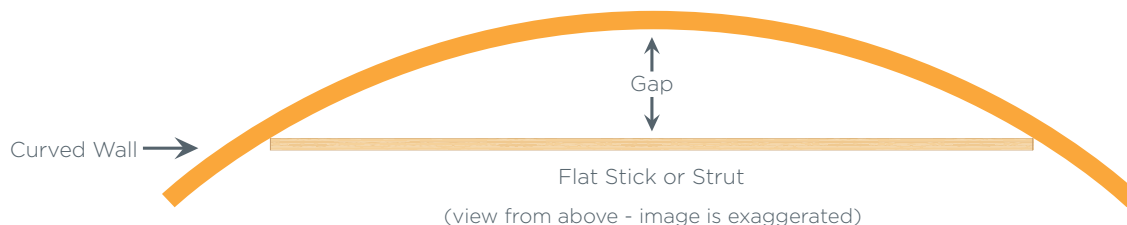
3. Calculate the radius with the following equation:

    Gap/2 + (Length/8 x Length/Gap) = Radius

    Example

    Stick/Strut Length: 48" (121.9 cm)

    Gap: 0.375" (9.5 mm)

    0.375/2 + (48/8 x 48/0.375) = 768" (19.5 m) Radius

Gap

Curved Wall →

Flat Stick or Strut

(view from above - image is exaggerated)

Curved Video Walls on Flat Walls

ConnexSys™ can also be used to create curved video walls when mounted on flat walls. Things to note when designing a curved video wall on a flat surface:

Flat Wall

5.5°

Curved Video Wall

(view from above - image is exaggerated)
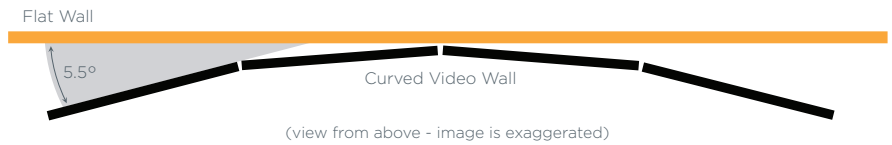
- The maximum angle a mount can make from vertical is 5.5 degrees
- Two or more mounts placed side-by-side can create a maximum angle of 11 degrees
- All other criteria listed in the above "Strut Channel Requirements" still apply

Allowing Space for Mount Adjustability

To retain the maximum amount of adjustability for video wall alignment, you will need to plan to use more than the minimum depth capabilities of the ConnexSys mount. As a rule of thumb, assume the mount is 4.5" (11.4 cm) deep. Then take the longest dimension of the video wall and multiply by the relevant depth adjustment factor to determine the minimum mount depth needed for your installation.

Wall Radius	Depth Adjustment Factor
Radius > 500" (12.7 m)	.0025" per inch (2.5 mm per meter)
200" (5.08 m) < Radius < 500" (12.7 m)	.00312" per inch (3.12 mm per meter)

Wall Radius 600" (15.24 m)

Example

In the example shown on right, you should install under the assumption that the depth will be 4.86" (12.36 cm). Because 146.7" is greater than 113.2", we use 146.7".

4.5" + (146.7" x .0025") = 4.86"

146.7"
(3.72 m)

Questions?

Contact us online or by phone for guidance.

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113.2"
(2.87 m)

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