

# FLEXI-WEDGE CLAMP INSTALLATION GUIDE

## OPTIMAL INSTALLATION CONDITIONS

For best results with the FLEXI-WEDGE tensioning system, we recommend not attempting a face installation unless the ambient temperature of the area being worked in is at least 45° F (8° C).

## WORK AREA

Utilize a clean work area, with sufficient size foot print to permit laying out of the entire sign face. This is required to efficiently layout clamp location lines and to install the FLEXI-WEDGE clamps.

## APPLICATION & DESIGN CONSIDERATIONS

- FLEXI-WEDGE clamps suitable for use in dry, dry and damp or wet locations.
- Not to be used when an "electrical enclosure" classification is required.
- Maximum center to center dimension not to exceed 12" (See page 3 figure #7).
- Any frame dimension over 6 feet needs to be braced to prevent billowing.
- Use a Flexible Face Material with a minimum thickness of 0.020" (0.51mm).

## TOOLS REQUIRED

- \* Reversible, variable speed drill
- \* 7/16" hollow-shaft nut driver to fit into drill
- \* Chalk line
- \* 50' measuring tape
- \* Razor edge utility knife or sharp sissors
- \* Water- soluble ink marking pen or grease pencil
- \* Mild detergent and water for post tensioning of face clean up

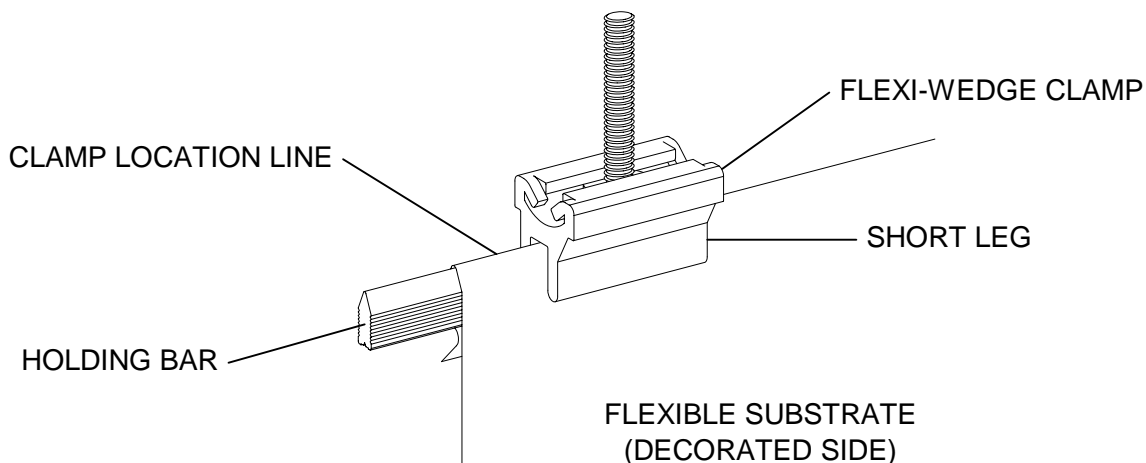


FIGURE 1: Clamp Anatomy

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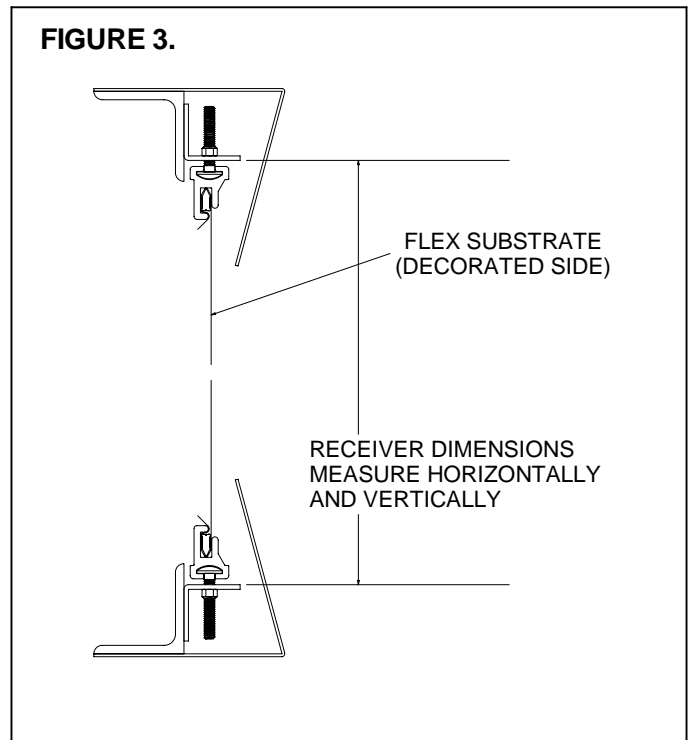
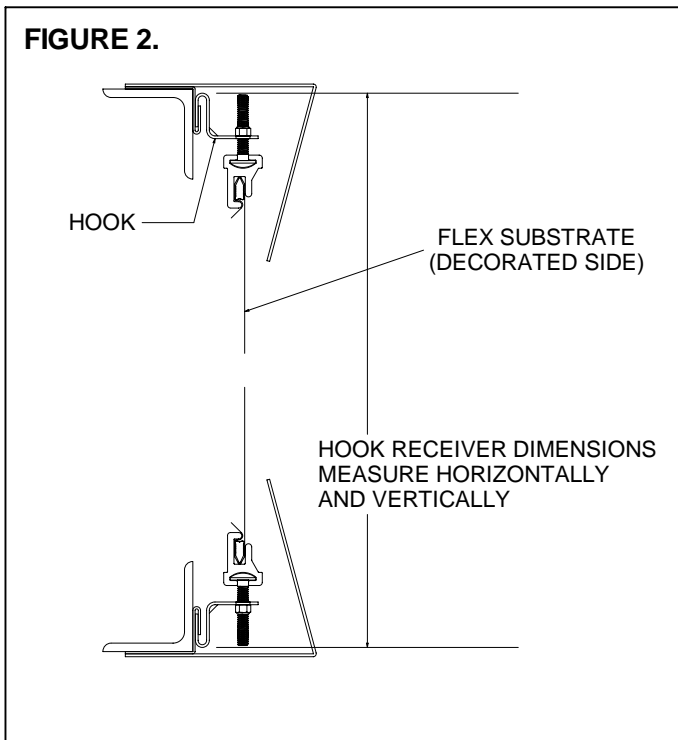
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# FLEXI-WEDGE CLAMP SIGN FACE WORKSHEET

	Vertical	Horizontal
<b>Part 1</b>		
A. Measure the Receiver Dimensions in inches. - See Figure 3 or Figure 4.	_____	_____
B. Subtract 3-1/2" for hardware.	- 3.5"	- 3.5"
C. Subtotal.	= _____	= _____
D. Subtract a Tension Factor. For most faces use 1/16" per 12 ". For faces smaller than 6' use 3/8".	- _____	- _____
E. These are your Hardware Location Line Dimensions.	= _____	= _____

<b>Part 2</b>		
F. Enter the Hardware Location Line Dimensions from Step E.	_____	_____
G. Divide by 2.	/ 2	/ 2
H. These are the dimensions from face centerline to the Clamp Hardware Location Lines; see Figure 4, page 3.	= _____	= _____

\* Add a minimum of 2 1/2" (total) to Hardware Line Dimensions to determine overall face blank size.



**Step #1:** Complete the Sign Face Worksheet  
This procedure assumes you already know the sign cabinet dimensions.

Complete the worksheet on page # 2

\* If you are using the hook, measure the receiver dimensions with the hook. See Figure 2, Page 2.

\* If you are attaching the clamp directly to angle iron, measure the receiver dimensions as shown in Figure 3, Page 2. Be sure to elongate the holes in the angle iron to allow for some lateral movement.

**Step #2:** Mark the Centerlines

The centerline is dictated by how the copy must be located in the sign cabinet. In most cases, the copy is centered in the cabinet. Use a chalk line to mark the vertical and horizontal centerlines. See Figure 4, Page 2.

**Step #3:** Mark the Clamp Location Lines

Use the results from the Sign Face Worksheet (Page 2). Measure off of the center lines to determine Clamp Hardware Location Lines. See Figure 4, Page 3.

**Step #4:** Determining Design Wind Velocity Area

Utilizing the Wind Velocity Map (see Figure 5, Page 3) determine the Wind Velocity Value of the area the sign cabinet will be installed into. These are only guidelines, however, and do not take into consideration higher winds caused by unusual weather systems, or special conditions that signs located on buildings may incur.

**Step #5:** Determining Design Wind Pressure

Use the table, Figure 6, page 3 to determine the required Design Wind Pressure. The pressure is dependent on both the height the sign is from the ground and the Design Wind Velocity Area determined in the previous step.

**Step #6:** Clamp Center to Center Spacing

- Use the chart, Figure 7, Page 3 and locate the Design Wind Pressure you calculated in Step #6.
- Follow horizontally across the table to the appropriate Sign Face Area for your display. If the area is between two numbers in the row, round to the larger number.
- Follow vertically down the table to find the correct maximum Clamp spacing distance, which is based on center-to-center of the clamp.

Example:

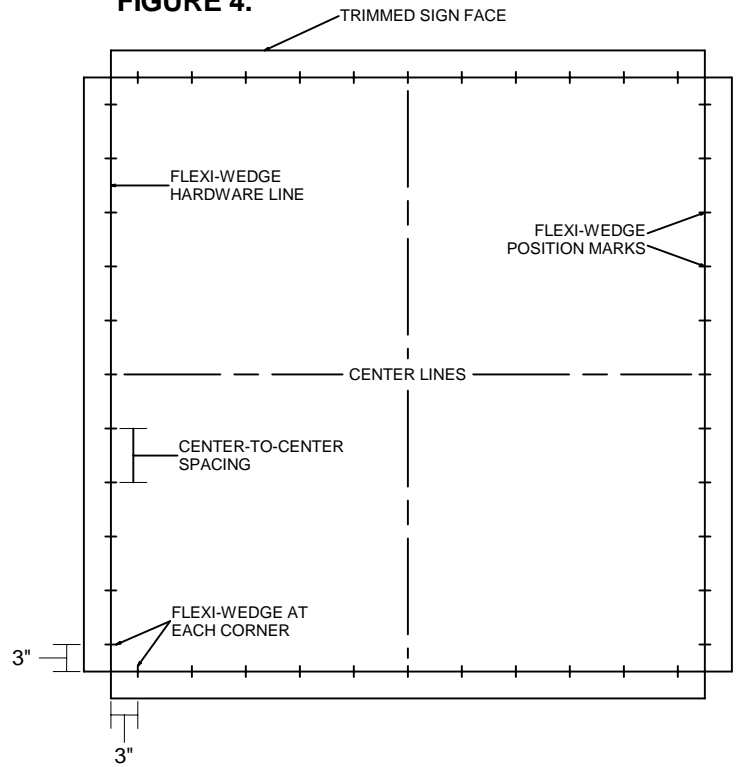
At a wind load pressure of 35 psf, a 240 square foot sign face--rounded up to 247 square feet--requires a maximum of 11 inches center to center clamp spacing.

**Step #7:** Mark the Clamp Positions

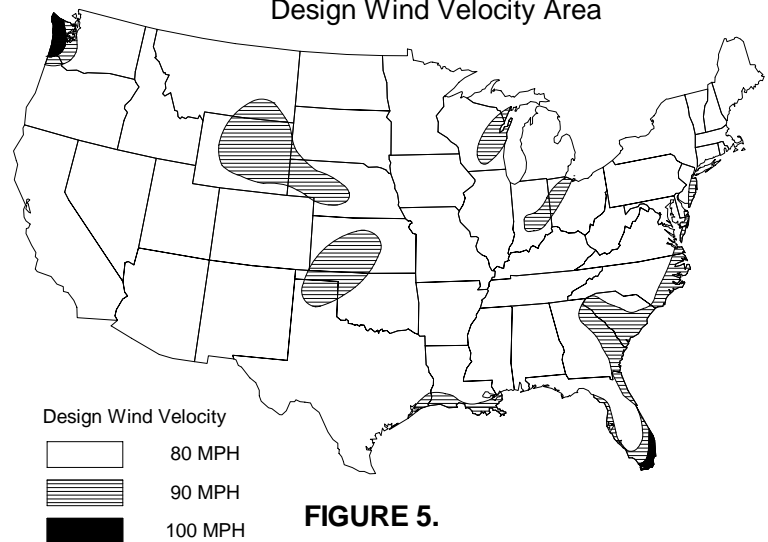
- From each vertical and horizontal corner of the clamp location lines, make a mark 3 inches from the corner. This is the location of the first clamp in each corner. You will have 8 marks.
- From the first mark, make the remaining marks evenly spaced using the maximum center-to-center spacing determined in Step #6 as a guide. See Figure 4, Page 3.

NOTE: Locating the first clamps 3 inches from the corner eliminates wrinkles and puckers in the corners of the sign face.

**FIGURE 4.**



**Design Wind Velocity Area**



**FIGURE 5.**

**FIGURE 6.**

Height from Ground Level to Top of Sign Cabinet	Design Wind Pressure		
	80 mph area	90 mph area	100 mph area
feet	psf	psf	psf
15 - 30	30	40	50
30 - 50	35	45	55
50 - 100	40	50	60
100 - 150	45	55	65
150 - 200	50	60	70
200 - 300	55	65	75

**FIGURE 7.**

Design Wind Pressure	Sign Face Area Square Feet									
30 psf	186	224	273	337	422	500	*	*	*	*
35 psf	37	165	201	247	310	396	500	*	*	*
40 psf	105	126	153	189	237	303	397	500	*	*
45 psf	83	99	121	149	187	240	314	424	500	*
50 psf	67	80	98	121	152	194	254	343	420	500
Center-to-Center Clamp Spacing Distance										
Spacing Distance	12"	12"	12"	11"	10"	9"	8"	7"	6.5"	6"

**Step #8: Clamp Installation**

- A. Before you install the clamps, notice that there is a short leg and a long leg. Make absolutely certain that the **short leg faces the decorated side of the sign face** as shown in Figure 8, Page 4. If the clamp is mounted backwards, the clamp can come loose.
- B. Wrap the sign face over the holding bar along the Clamp Location Line.
- C. Push the clamp over the sign face and then slide over the holding bar as shown in Figure 1, Page 1.
- D. When the clamp is utilizing the hook method, place the hook and a locking nut on the bolt See Figure 9, Page 4

**Step #9: Prepare to Move the Sign Face**

Carefully fold the sign face in loose folds before moving it to the sign cabinet for installation or storing it.

- \* Do not allow the hardware to scratch the decorated surface.
- \* Use slip sheeting if the sign face will remain folded overnight.
- \* Fold opposite ends of the sign face into the center, repeating this process until the loosely folded sign face is small enough to handle easily.

NOTE: In most cases if the face is vinyl decorated, fold the material so that the decorated surfaces are to the OUTSIDE of the fold.

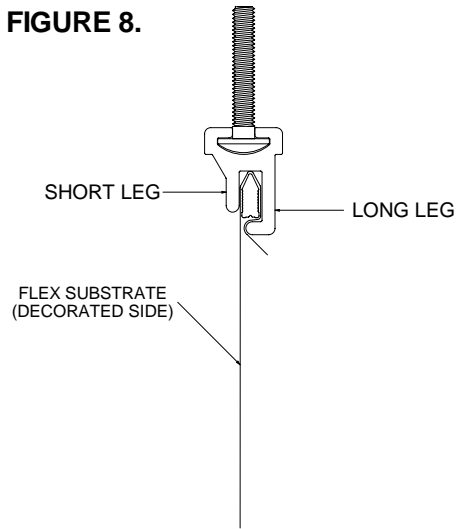
**Step #10: Hanging the Sign Face**

- A. Mark the sign cabinet at the center points of all four sides for placement of the centerlines marked on the sign face.
- B. Start at the top center of the sign cabinet and hang the sign face all along the top.
- C. Slide the face along the top Hook Receiver (small movement only) until it is visually centered on the cabinet mark.
- D. Attach the side and bottom hooks, starting with the center clamps.
- E. Recheck the overall visual appearance.

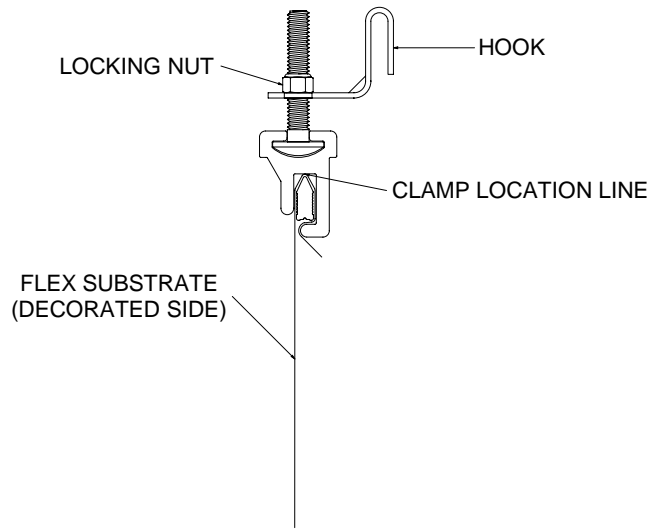
**Step #11: Tension The Sign Face**

- A. Always tension the long dimension first on any sign face.**
- B. Tighten the locking nuts on all clamps around the sign face until the distance between the hook and the top of the clamp is 1/2 inch. See Figure 10, Page 4.
- C. The sign face should feel tight and be wrinkle-free when properly tensioned.
- D. DO NOT tension the sign face more than the specified tension factor of 1/16 inch per 12 inches. When tensioning sign faces where the dimension is 6 feet or less, tension until the face feels tight. DO NOT over tension.
- E. Make sure the Clamp Location Lines remain straight after tensioning the sign face.

**FIGURE 8.**



**FIGURE 9.**



**FIGURE 10.**

