# How do I determine the proper mesh panel dimensions?

**Gale**Shield Weather Screen panels are "custom fabricated" for proper fit and a pleasing appearance, therefore, your measurements are important. If, after reading and viewing the dimension information you have questions, please e-mail or call our office.

Gale Shields typically are mounted to the <u>outside</u> of the posts for maximum efficiency. The Pull Rope is located on the inside of the structure for ease of operation. The dimensions for a given opening for a Slide-Up Model are slightly different from a Stationary Model.

# 1) STATIONARY MODEL -

This model is fabricated with a 1" hem around the perimeter and "0" size grommets with 1/4" holes are installed in the corners and approximately every 12" around the perimeter. They are positioned in the middle of the hem, thus 1/2" from the outer edge. Therefore, to provide a proper mounting ledge the mesh should be 2" to 3" larger than the opening it covers. (1" to 1-1/2" per side)

### a) WIDTH:

We typically suggest measuring center-to-center of the vertical posts and than deduct 1" to provide tolerance for posts that are not exactly plumb. This will prevent overlaps and provide an adequate surface for proper screw penetration.

**Corner bays -** Width dimensions are typically measured from the outer edge of the corner post to the center of the next post. That dimension should be identical to the center-to-center dimensions of the side wall bays. By making the corner bay screen widths the same as the side wall panels will be the same, thus making installation simpler.

**Gutter Downspouts -** You should determine whether you want to mount the screen panels next to downspouts (if there is adequate mounting space (an inch or so on each side) *OR* loosen the downspouts, swing them out and install the screens underneath, then replace the spouts. These panels of differing size should be noted on a schematic of your area.

#### b) HEIGHT:

**Side Wall** - Usually, at the top, just under the roof material, there will be a horizontal 2" x 6" purlin attached to the outer post surface. It is parallel to the ground and provides a mounting surface for the top mesh hem. Measure from the bottom of the purlin down to the top of whatever horizontal mounting surface exists at the bottom. That can be any board attached to the outer post surface OR inset between the posts with its outer surface close to the outer post surface OR a 2" x ?" board laid flat (such as a liner wall cap) than measure down to its top edge. Then, ADD 3" to that dimension. This will provide an adequate mounting surface of 1-1/2" at the top and the bottom. That is the MINIMUM. You may add to the height dimension to ensure an adequate mounting area to install hem screws

Note: There are instances, such as gutters mounted directly to the eave purlin, when it becomes impossible to use the outer purlin surface. The top hem may be screwed to the *INNER SURFACE* of the eave purlin and can be accomplished using the same dimension as above. Since the GaleShield mesh is vinyl coated, it will not ravel when cut. Therefore, during installation, notches are cut in each upper corner to allow the *TOP HEM* to be pulled to the *INSIDE* and screwed to the eave purlin. Then the side hems are screwed to the *OUTER POST SURFACE*. (You may wish to utilize this mounting procedure as a preference even when there are no obstacles, such as roofs with 2' to 3' of overhang.)

**End Wall** - Typically, the end wall will have a "Gable Enclosure" with framework of 2 X 6's covered with siding of some type (metal or wood). There is usually a 2" x ?" running horizontally at the bottom of the gable closure. This can used as the top mounting surface, similar to the eave purlin on the side walls. It is your decision to mount to the **OUTER or INNER** surface. ( as explained previously) Then measure down to a similar horizontal mounting surface, as you did for the side wall.

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# 2) ROLL-N-VENT MODEL -

This model is fabricated with a 1" hem on the top and sides and "0" size grommets are installed in the corners and approximately every 12" across the Top hem. They are positioned in the middle of the hem, thus 1/2" from the outer edge. Therefore, to provide a proper mounting ledge the mesh should be 3" larger than the opening it covers. (1-1/2" per side). A Horizontal Pocket is fabricated into the screen at the bottom. (This accommodates the "customer furnished 3/4" x 10' EMT Galvanized tube (Electrical Conduit) Three (3) hold-down Tension straps with Cam-Loc Buckles are attached to the bottom pocket and screw-on strap brackets are included. Three (3) additional Tie-Strap Assemblies are positioned at the height you have specified for the "Open Vent Upper position. This allows you to roll the screen up and lock it in that position.

## a) WIDTH:

We typically suggest measuring center-to-center of the vertical posts and than deduct 1" to provide tolerance for posts that are not exactly plumb. This will prevent overlaps and provide an adequate surface for proper screw penetration.

**Corner bays -** Width dimensions are typically measured from the outer edge of the corner post to the center of the next post. That dimension should be identical to the center-to-center dimensions of the side wall bays. By making the corner bay screen widths the same as the side wall panels will be the same, thus making installation simpler.

**Gutter Downspouts -** The Roll-N-Vent must be dimensioned so they do not touch the sides of the downspout to allow the roll-up to function properly. It is best to have a minimum of 1/2" between the screen edge and the downspout. These panels of differing size should be noted on a schematic of your area.

#### b) HEIGHT:

**Side Wall** - Usually, at the top, just under the roof material, there will be a horizontal 2" x 6" purlin attached to the outer post surface. It is parallel to the ground and provides a mounting surface for the top mesh hem. Measure from the bottom of the purlin down to what ever length you want the screen to cover. Again, the bottom is supported with the EMT Tube inserted in the bottom Horizontal Pocket and held down with the Tension Strap Assemblies.

#### Note:

There are instances, such as gutters mounted directly to the eave purlin, when it becomes impossible to use the outer purlin surface. The top hem may be screwed to the *INNER SURFACE* of the eave purlin and can be accomplished using the same dimension as above. Since the *GaleShield* mesh is vinyl coated, it will not ravel when cut. Therefore, during installation, notches are cut in each upper corner to allow the *TOP HEM* to be pulled to the *INSIDE* and screwed to the eave purlin. Then the side hems are screwed to the *OUTER POST SURFACE*. (You may wish to utilize this mounting procedure as a preference even when there are no obstacles, such as roofs with 2' to 3' of overhang.)

**End Wall** - Typically, the end wall will have a "Gable Enclosure" with framework of 2 X 6's covered with siding of some type (metal or wood). There is usually a 2" x ?" running horizontally at the bottom of the gable closure. This can used as the top mounting surface, similar to the eave purlin on the side walls. It is your decision to mount to the **OUTER or INNER** surface. (as explained previously) Then measure down to the bottom position you select.

## 3) SLIDE-UP MODEL -

The Slide-Up Model is designed similar to a Roman Shade. It gathers into folds as it is raised. Therefore, when it is at the top there will be approximately 20" to 24" of loose folds hanging down. The design allows the sides to be attached to the slide mechanism each 36" and thus prevents excessive edge fluttering (such as allowed by a roll-up design without edge connections). An proprietary *GaleShield* aluminum slide rail extrusion accommodates the slide connections on both sides. We recommend maximum slide-up height to be 8' 10" or less. When an opening is greater than 8' 10" the top section may be attached as a stationary portion of the screen and screwed tight to the posts. This provides full height protection and when raised to the top of the opening height you select.

There are two reasons behind this recommendation:

- 1) Articles up to 8' 10" in length can be shipped without severe restrictions and freight upcharges.
- 2) Providing the rails in sections can be done, but aligning the two pieces at the joint must be performed with extreme care. They are being attached to wood surfaces that are not perfectly smooth, thus a slight off-set in the joining rail sections can cause the poly slide blocks to slightly hang up requiring a nudge by hand to get it past the joint. If you require greater than the 8' slide then a section of **not more than 34"** may be added at the **bottom of the slide rail**. Then only **ONE** poly block traverses the joint and can be easily reached to nudge it past the joint.

#### a) WIDTH:

Aluminum slide rails are attached vertically to the outer post surface with their edge aligned with edge of the post. (see ILLUSTRATIONS) The aluminum slide rails protrude out from the outer post surface 1-1/2", thus align with the outer surface of the 2" x 6" eave purlin at the top. The *GaleShield* design requires the mesh panel to overlay the slide rails. Therefore, the width should be 1" less than the center-to-center post dimension to allow the mesh overlay and prevent adjacent screen panels from touching each other.

**NOTE:** Using *GaleShields* on structures without an overhang that are not equipped with gutters is not advised since large volumes of rain water pouring off the roof, runs down the *GaleShield* and usually runs inside the arena soaking the footing. Exceptions to this would structures with adequate roof overhangs (2' to 3' or more)

### b) HEIGHT:

Slide-Up models are fabricated with a 1" hem across the top and on both sides. The bottom has a horizontal pocket fabricated into the screen panel and is not attached to the framework. You must determine the bottom point of the screen panel. If there is a liner wall that does not have a top cap extending past the outer post surface, the screen should hang a few inches below the top of the wall . If there is a top cap that protrudes past the outer post surface, then the screen bottom should just touch that board, allowing the screen panel to hang straight without obstruction. By deducting an inch or so from the **HEIGHT DIMENSION** you will have some adjustment tolerance to raise or lower the entire panel prior to securing the top hem.

#### C) DOWNSPOUT OBSTRUCTION:

Since gutter downspouts are normally mounted to the outside of the posts, it requires a change in the *GaleShield* width dimensions. The Slide-Up Model requires at least 1-1/2" from the post edge for sufficient mounting area and another 1/2" for clearance. It is best to install a 2" x 4" at the edge of the post to provide the 1-1/2"space and mount the aluminum rail to it. This will then provide adequate room for the mesh to over-lay the rail and not contact the downspout, thus allowing smooth operation when raised and lowered. If this is done, the screen width should be 1" less than the dimension from the downspout to the center of the adjacent post.

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# 4) CABLE MOUNT

The **CABLE MOUNT** Kit was designed, primarily, for **ALL-STEEL structures** with open walls. All previous *GaleShield* Models were designed for installation on wood framed structures and are secured in place with grommets in the hems and screwed to that wood frame. This is not possible with an ALL-STEEL structure, therefore an alternative mounting system was required. Thus, the **CABLE MOUNT** system was designed to securely anchor the mesh panel into place. It is comprised of 1) three (3) Galvanized Steel Cable Kits with Turnbuckles to stretch the cable taut., 2) Tension Strap Kits (Nylon straps with attachment hardware and Cam-Loc steel buckles fabricated to the screen side hems at 3' on center on each side, and 3) Rows of Snap Hooks located at the Top, Midway, and Bottom.

#### a) WIDTH and HEIGHT:

Unfortunately, not every All-Steel structure is designed identical. Most use "H" Columns for the Side and End walls. But, they may utilize different Corner Columns such as square steel tubes or "C" steel. Some use Round steel columns. This is were A&B Associates shines. We have been faced with all of these configurations and have designed *GaleShield* Screen kits that securely attach and perform properly keeping the weather at bay. Go to the **HOW TO MEAS-URE** tab under the **CABLE MOUNT** sub-tab and you will find Three (3) Diagrams:

- 1) SIDE FACING CORNER H-COLUMNS This means the Corner Column flat surface faces the SIDE of the structure.
- **2) END FACING CORNER H-COLUMNS** This means the Corner Column flat surface faces the END of the structure.
- 3) ROUND PIPE COLUMNS When all columns are round steel.

If you have any questions or concerns, please contact our office and will guide you. Print the one that applies to your structure and fill in all dimension blanks. Then it should be emailed or faxed to our office at the time you submit the on-line **GET A QUOTE** form. We may have questions and will contact you if necessary to complete your custom quote.

**NOTE:** Using *GaleShields* on structures without an overhang that are not equipped with gutters is not advised since large volumes of rain water pouring off the roof, runs down the *GaleShield* and usually runs inside the arena soaking the footing. Exceptions to this would be structures with adequate roof overhangs (2' to 3' or more)

### C) DOWNSPOUT OBSTRUCTION:

Since gutter downspouts are normally mounted to the outside of the posts, it may require a change in the *GaleShield* screen width dimensions. The **CABLE MOUNT** Kit requires at least 1-1/2" from the column face for sufficient mounting area and Tension Strap adjustment clearance. It is best that the Downspouts are attached with Stand-Off Brackets to permanently provide the proper clearance. If this is not possible, you may have to temporarily remove the down spouts and replace after the *GaleShields* have been installed. This may cause future difficulties when adjusting the Tension Straps. (Adjustments may only be required once per year or less)

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# 5) **ROUND PEN**

The **ROUND PEN** Kit was designed, primarily, for **Covered Round Pens.** We **DO NOT** supply the roof structure - **GaleShield** Kits are **ONLY** for the Side Walls. We will fabricate **GaleShield** Round Pen Kits for steel pipe or wood structures.

#### a) WIDTH and HEIGHT:

Dependant upon the type of structure (steel pipe or wood) we will fabricate *GaleShield* Kits to securely mount. Go to the **HOW TO MEASURE** tab under the **ROUND PEN** sub-tab and you will find a Diagram. The dimensions required are outlined on that form. If you have any questions or concerns, please contact our office and will guide you. Print and fill in all dimension blanks. Then it should be emailed or faxed to our office at the time you submit the online **GET A QUOTE** form. We may have questions and will contact you if necessary to complete your custom quote.

**NOTE:** Using **GaleShields** on structures without an overhang that are not equipped with gutters is not advised since large volumes of rain water pouring off the roof, runs down the **GaleShield** and usually runs inside the arena soaking the footing. Exceptions to this would be structures with adequate roof overhangs (2' to 3' or more)

#### **EXAMPLES OF ROUND PEN STRUCTURES**

STEEL PIPE STRUCTURE With Fabric covered roof assembly.

