

## PORCH PANEL SUGGESTIONS

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February 22, 2012

### 1) Overview

- a) Porch Panels are custom sized screens to enclose porches, decks, etc. Porch Panels can be made from the same materials used to make window screens.
- b) Porch Panels must be installed on an existing structure usually made of wood or wood-substitute material.
- c) If you have a special situation, please call us to discuss further.

### 2) Frame

- a) The standard frame used for Porch Panels is roll-formed aluminum measuring 7/16" thick with a face of 1 1/16" (192" stock lengths). We also carry 5/16" x 3/4" (192" stock lengths) frame in stock at standard price as well as 3/8" x 3/4" (192" stock lengths) and 1/4" x 3/4" (150" stock lengths) frame in stock at an upcharge. Heavier extruded aluminum frame is available in many shapes but must be special ordered.
- b) If available color is not close enough to desired matching color, we suggest picking a contrasting color or a dark color such as bronze or black to make the frame less noticeable.
- c) We do not recommend placing a cross bar (CB) in a Porch Panel because it obscures the view and does not serve any purpose (the sides of the Panel will be held sufficiently in place by the screws used to attach it).

### 3) Mesh

- a) Standard 18 x 16 Fiberglass Mesh is available in charcoal and grey (up to 96"). Charcoal, although darker, is usually less noticeable (more invisible) on installation because it reflects less light.
- b) For an upcharge, we also offer and keep stock of Brite Aluminum Mesh (up to 60"), Charcoal Aluminum Mesh (up to 60"), Charcoal Solarscreen (up to 72"), and Black Petscreen (up to 72"). Additional options are available but must be special ordered.

### 4) Corners

- a) Internal Mitered Corners have screen frame cut at angle and showing a metal-to-metal interface with a hidden internal plastic corner when assembled.
- b) External Plastic Corners have screen frame cut straight and showing a plastic external square at the corner when assembled.
- c) Either option is available for the same standard price. We recommend External Plastic for color frames and Internal Mitered for mill frames.

### 5) Spline Up or Down

- a) Spline Up means that when fabricated as drawn (or specified by measurements), the spline groove will be visible.
- b) Spline Down means that when fabricated as drawn (or specified by measurements), the spline groove will be hidden behind the frame. This is suggested because it is easier to install, and the result looks more finished.
- c) When measuring and installing from the same side, Spline Up means the spline groove will be towards you when installing. Spline Down means the spline groove will be away from you when installing. When measuring and installing from different sides, spline side is reversed.
- d) Either option is available for the same standard price. We recommend installing Porch Panels with the spline groove away from you.

### 6) Sizing

- a) Our production tolerance is +/- 1/16". Please account for this production tolerance when ordering.

- b) We are able to fabricate extremely large Porch Panels (our largest table measures 95" x 143"). However, we recommend limiting the size of the panels to as small a size as possible to improve long-term function. Subdivide large openings if possible.
- c) Larger screens are more difficult to produce, transport, and install. Also, weather conditions such as wind, rain, and sleet can damage Porch Panels because of the force they exert on the screen mesh. The likelihood of damage increases as size increases by the following guidelines:
  - i) Under 110 United Inches = Normal & suggested. No problem expected.
  - ii) 110 to 149 UI = Large & acceptable. Heavy weather conditions could damage.
  - iii) 150 to 174 UI = Very large & questionable. Normal weather conditions might damage.
  - iv) 175 and more UI = Extremely large & dangerous. Normal weather conditions will likely damage.
- d) Sides smaller than 3" are difficult to produce with standard materials and processes. Depending on the specifics of the panel, we may be able to fabricate a side smaller than 3", but it is not recommended.

#### **7) Angles**

- a) If the left and right and/or top and bottom sides of a Panel are slightly different, we can produce them as a standard Panel at standard pricing.
- b) Any shape that has greater or less than 4 sides is considered an Angle and requires special fabrication techniques and Angle pricing. Also, any 4-sided shape with a difference between left and right and/or top and bottom of more than 1" for every 20" of distance between them is considered an Angle and requires special Angle pricing.
- c) All angled corners will be fabricated as internal mitered corners. If you want all Panels to be fabricated in the same way, order all Panels with internal mitered corners.

#### **8) Arches**

- a) Any shape with a curve is considered an Arch and requires special Arch pricing.
- b) We can produce constant radius Arches with measurements only (all side measurements plus the up the middle measurement, which is the height measurement from the bottom middle of the screen straight up to the outside of the arch).
- c) For Arch shapes with flat spots or sharp curves at certain points, we would need a template to determine if we can possibly make a screen to match.

#### **9) Framing & Measuring**

- a) Porch Panels can be installed from the outside or from the inside of your porch and measurements should be taken accordingly. The most common consideration in deciding between an outside or inside installation is ease of access. An additional consideration is how the installation will be finished. If there will be a stop or facing strip on the outside of the Porch Panel, it should be done in a way such that there is not must space for leaves and other debris to settle.
- b) For recess-mounted applications, install a 2x2 wood or similar stop strip (2x1, 1x1, and quarter round shapes will also work but leaves less room for error) on the inner side of each opening against which the screen frame will be installed. Measure the main openings and subtract suggested 1/4" from all dimensions for ordering Panels.
- c) For surface mounted applications, measure the main frame openings and add suggested 2" to all dimensions for ordering Panels.
- d) If you prefer, take only the opening dimensions, we will add or subtract per your instructions.
  - i) For recess mount applications, we suggest subtracting 1/4" per measurement (which is equivalent to a 1/8" gap all around screen when centered in opening). Deduction should absolutely never be less than 1/8" per measurement to account for fit space and GSP production tolerance, but it might not be enough of a deduction to account for any original measurement or wood tolerances.

- ii) For surface mount applications, we suggest adding 2" per measurement (which is equivalent to a 1" overlap all around opening when screen is centered over it). Addition should absolutely never be less than 1-7/16" per measurement with 7/16 frame and 1-9/16" with 3/8, 5/16, and 1/4 frames to account for frame face and GSP production tolerance, but it might not be enough of an addition to account for any original measurement or wood tolerances.
- iii) We are unable to take deductions from most Angles and Arches because of the complexity so please provide exact finished screen sizes required for Angles and Arches.
- e) We suggest measuring only after the framing is completed. Porch Panel measurements based on plans will likely lead to installation problems.

#### **10) Hardware**

- a) We provide 12 color-matched hex head screws free of charge with each Porch Panel.
  - i) 8x1 Slotted Hex Washer Head Self Pierce Screw.
  - ii) Use with a 1/4" hex driver.
  - iii) Fully treated with MAGNI 599 which is an anti-corrosion coating suitable for use with pressure-treated wood.
- b) Additional quantities of screws are available for a small charge.
- c) Other screen hardware is available but not recommended (see Removing section below).

#### **11) Installing**

- a) Standard Porch Panels made with standard roll formed aluminum screen frame are usually not rigid enough to self-support themselves and the mesh. It is common for an uninstalled Porch Panel to "hour glass" with the sides bowing in and the mesh appearing loose. Strength and tension is best provided by connecting the panels directly to the primary porch structure with screws through the frame to keep the Panel at its manufactured dimensions.
- b) Pre-drilling holes on panels is not necessary because our self-piercing hex screws and a properly set drill motor will easily and cleanly go through the frame. If you prefer to pre-mark or pre-drill the screw locations, we recommend that it be done on the job site to account for the particular details and alignment of your porch. Although not recommended, we can pre-drill holes for you at an additional charge if you tell us exactly where you would like the holes.
- c) Center the Panel in the opening and place a screw at the top center.
- d) Pull the frame at the bottom directly down until the mesh is taught and place a screw at the bottom center.
- e) Pull left side, place screw at left center, and then repeat on right side.
- f) Repeat this pull and screw procedure from top to bottom and left to right until screws have been placed at a distance of no more than every 2 feet along screen frame perimeter. Except for extremely large panels, the 12 screws provided for each panel should be sufficient, but extra screws can be ordered as needed.

#### **12) Finishing**

- a) Leaving the screen frame exposed with painted hex screws is chosen on most jobs because it is easiest and makes future repairs easier also.
- b) For recess mounted Panels, a facing strip can be installed over the screen frame if preferred. If you choose this finishing option, we recommend using a bronze or black screen frame.

#### **13) Removing**

- a) It is possible to remove Panels simply by unscrewing them.
- b) But, we do not recommend frequently removing and reinstalling Panels because the screw holes will eventually open up and not be functional.
- c) Although it is possible to make a Panel with plunger pins or thumb turns for easier removal and reinstallation, we do not suggest this option because the mesh in the Panel will almost certainly not be held at preferred tension. The mesh will likely appear loose and also the frame might sag or hourglass in the middles creating gap openings.

**14) Doors**

- a) We can provide a variety of Screen Doors that match nicely with our Porch Panels.