



PalmSHIELD Aria Series Installation Instructions

PalmSHIELD prides ourselves on having a reputation of being the most user-friendly architectural screen system to install. We have been working directly with installers for over a decade to improve our overall installation.

At the onset of your installation, you can look forward to:

- All of our posts are pre-routed to receive the planks.
- Vinyl and aluminum planks will be pre-notched to slide directly into the posts. Composite planks will come with steel clips to be screwed to the ends of the planks.
- Our hinges are pre-mounted to the gate frames. The remaining half is packaged to be field welded to the steel gate post. You may request that we fully install your hinges if you are sure of site conditions.
- Our drop rods are all pre-mounted to the gate frames.
- Our internal locking devices are all pre-installed on the gate frames.
- You will receive a system layout drawing that provides the distance between posts so you may select the proper planks for each bay.
- You will receive a packing list that indicates the quantity and length of every plank and post.

Important items to review at the start of the installation

- Every PalmSHIELD installation was initiated with a fabrication drawing. This drawing is the basis for your installation. Please follow this drawing to the letter as there is little flexibility in the dimensions.
- Unless stated otherwise on your fabrication drawing, PalmSHIELD systems are to be installed level. As most systems are installed outdoors, most exterior paving is not level. If your surface is not level, you will need to verify and plan accordingly. The Aria series does provide some flexibility for being installed on slopes. However, the end result may not be attractive as the planks slope from post to post.
- Review the swing of your gate. Will it interfere with any other surface like raised equipment pads and curbing?
- Aria fabrication drawings are unique in that these drawings will also provide a sequence for installation to assure the louvers are installed to fit.

Hardware included with your PalmSHIELD Aria series system

1. Vertical panel support bars. These are pre-punched and packaged separately. The top is labelled.
2. Rivets
3. Ball bearing. These are packaged separately. One ball bearing per hinge.
4. Drop rods. These are pre-installed on the gates.
5. Locking devices. These are pre-installed on the gates.
6. Hinges. Half of the hinge is pre-installed on the gate post. The other half is packaged to be field welded unless instructed otherwise.
7. Oil. This oil is to be placed on the tip of each sheet metal screw

Hardware not included.

- Post anchors are not included. Based on 4000 psi concrete, you may consider 5/8" x 6" epoxy anchors or 5/8" x 5 1/2" wedge anchors. PalmSHIELD is not responsible for determining anchor type or installations. This should be determined by qualified individual based on site conditions.
- Padlocks for locking devices.

Pre-installation Preparation

1. Using some form of marking chalk or tape, layout your system in accordance with your included fabrication drawings. If you do not have these drawings, please inquire with PalmSHIELD for a copy.
2. Layout each run from center to center of posts.
3. Layout gate openings from inside of post to inside of post.
4. Layout the entire system prior to starting to insure it fits your space as you intended.
5. If possible, mark your posts and bays on the ground as labelled on your fabrication drawings.
6. Label the sequence in which the system is to be installed as per the installation drawings.
7. If concerned about changing elevations, identify the highest elevation on your site where the system is to be installed. This may be your benchmark for setting your posts. All of your posts will have to be installed to this elevation. A couple hints to make this easy.
 - a. Start at the highest elevation and level each panel as you go. OR
 - b. Run a string line along the installation. Set it flush at the point of highest elevation and then level it over the balance of the installation. OR
 - c. Use a site level and determine the change in elevation at each post.
 - d. As the elevation drops, you will have to either shim under your posts or install leveling nuts to your anchors.
8. If changing elevations are not an issue, start your PalmSHIELD system at a permanent structure such as building or wall. It is to start here and work out into space where you do not have to be concerned about ending gaps.
9. PalmSHIELD Aria series will allow for some slope but the end result may not be agreeable in appearance.

Installation Steps

1. It is best to install your PalmSHIELD Aria system by initially setting all your posts per the fabrication drawings.
2. If your posts are plated, using the post base plate template provided with your order,
 - a. use the template to align the first post to your site markings.
 - b. Make sure the post base plate runs parallel to the run and it is not twisted.
 - c. Mark the center of the anchor holes.
 - d. Set your anchors.
3. Select your first post based on the drawing. Posts are labeled in accordance with the drawing. You should verify if it is a corner, end, or gate post from the fabrication drawing. This can be identified based on the holes routed to receive the planks in the posts.
4. Set your first post. Make sure your post is plumb in all directions. Use this process to set all posts.
5. If you are setting your posts in a concrete footing.
 - a. Dig your holes in accordance with the fabrication drawings.
 - b. Mix and place your concrete in the hole(s).
 - c. Stab your posts so it aligns with your site markings or string line.
 - d. Make sure your post is parallel to the run and is not twisted.
 - e. Make sure your post is plumb and level.
 - f. Make sure all posts are set to the same elevation to provide for a level louver installation. This may be done with a level string line or with a site level.
6. Once your posts are set, layout your louvers in accordance with the fabrication drawings.
7. Fabrication drawings will demonstrate the sequence in which louvers should be installed panel by panel to ensure the corner louver installations are the proper sequence relevant to the length of the louver.
8. At corners, one set of louvers will be precut to extend all the way across the corner post and the perpendicular louver will be fabricated so that it will extend only to the installed opposing louver.
9. The fabrication drawings will also show that each bay is numbered and lettered and each bay will be packaged separately and labeled in accordance with the fabrication drawings so you know which louvers go where by package.
10. The louvers installation is designed so that the louvers themselves are one degree off in an opposing direction either side so you may have to slightly twist the louver to get it installed and to the adjoining post. Once installed this louver should have enough tension so that it does not move or vibrate in the post.



11. Once the louvers are installed you must install the vertical backstrap in between each bay. The louvers are all pre-drilled and the backstrap is pre-drilled. Start with the backstrap aligned with the top louver and install first rivet. The backstraps are labeled "top".



12. Install first rivet and then the order is that each rivet should be installed in sequence from top to bottom. You may have to push the strap up or down, or side to side so that it aligns with the louver. In the end, the louvers will self-align horizontally and vertically.
13. The rivets will come coated to match the screening, but after install may need to be lightly touched up by small brush for any imperfections. Touch-up paint is included.
14. Verify your planks and posts compared to your fabrication drawings to assure every plank and post was accurately fabricated. If you identify an error, please contact us as soon as possible and prior to any installation. PalmSHIELD will be responsible for fabrication errors but not installation costs as a result of these errors.

Gate Installation:

1. At gate opening, be sure to install gate posts as shown on the drawings. Be sure your openings (inside to inside of post) are accurate.
2. Gate installations will vary based on site conditions. You should consider the swing of the gate relative to the grade that it sweeps over and make sure that there is plenty of clearance. Look for steep rising slopes, adjoining equipment pads with a higher elevation and curbing.
3. Once you have determined the elevation of your gate, weld the remaining half of the gate hinge to the post. Align the gate hinge so the back of the barrel where it meets the

plate is 3/8" in front of the post. In other words, there is a 3/8" gap between the barrel and the gate post.

4. Close the gate to the appropriate location. Lower the drop rod and mark the socket location. Repeat for the open position if necessary. For drop rod sockets, we recommend a 1 1/2" hammer drill or core bit. You may have to trim the drop rod.
5. The internal locking device should not require any further installation. The keys are located in the hardware package.
6. PalmSHIELD includes touch-up paint. Closely inspect your installation for any chips or scratches. Hold the can 6" to 8" from the area to be painted and sweep across it until entirely covered. The paint will blend with the powder coated surface.

Tools Needed.

- Chalk
- Socket set
- Set of open end wrenches
- Screw gun or electric drill
- Hammer drill bits for anchors. To be determined by contractor.
- 1 1/2" hammer drill or core bit for drop rods (if required).
- Hammer drill bits.
- Level
- Marking tape or paint
- String line.
- Rubber mallet
- Welder (if required for gate installations on steel posts)