

Avery Dennison Technical Bulletin 1.09

Application Instructions for Petrol Station Graphics

Background

This bulletin has been prepared to assist the professional decal applicator in the successful application of decals to petrol station canopies and pump skirts. The ongoing performance of the applied decal will be directly impacted by the condition of the substrate, the cleaning methods used to prepare the surface, and the method used to apply the decal. The following instructions should be followed to ensure the decal will perform adequately throughout its expected life. Since petrol station substrates consist of a wide variety of designs with various ages and condition, surface inspection and preparation are critical to a successful decal-marking program.

Surface Preparation

- Remove all hardware, locks, side shields, rubber bumpers, etc.
- Prior to decal application, inspect the substrate to ensure that the surface is clean and in sound condition. If the surface is painted, and is not the original paint supplied from the factory, the aftermarket paint should be inspected to be sure that it is adequately adhered to the surface underneath the paint. If the paint is not in sound condition, the surface must be reconditioned prior to decal application. Chipped paint should be feathered.
- All previously applied decals and adhesive should be removed prior to decal application.
- If there is any rust or corrosion present, surfaces should be treated to remove these contaminants, typically sanding, wire brushing, or sand blasting and following the additional steps below will be required.
- All application surfaces must be considered contaminated and must be cleaned prior to decal application.
- Remove all dirt, grime, and fuel residue with a commercial detergent solution and water. Avoid any detergents containing creams or lotions.
- Rinse the substrate surface thoroughly with clean water.
- Use of Avery Surface Cleaner is recommended for final preparation or alternatively saturate a clean, lint free cloth with Isopropyl Alcohol (IPA) and vigorously wipe the surface to remove contaminants such as grease, diesel fuel, oil, wax, etc.
- Immediately following the isopropyl alcohol wipe (while the surface is still wet with the isopropyl alcohol), perform a dry wipe with an absorbent, lint free cloth to remove any traces of the cleaning agent.
- The surface must be completely dry. Check all seams, rivet heads, and corrugations for any remaining moisture or solvent. If either moisture or solvent are present, a heat gun may be used to dry the surface completely. Do not use a torch or open flame.

NOTE: For a repainted surface, always ensure the underlying surface was properly prepared and that the painted surface has been properly processed per the paint manufacturer's specifications or recommendations. The drying or curing period of the paint system must be followed. Failure to adhere to the above can result in poor decal performance and difficult removal characteristics.

Application Tools

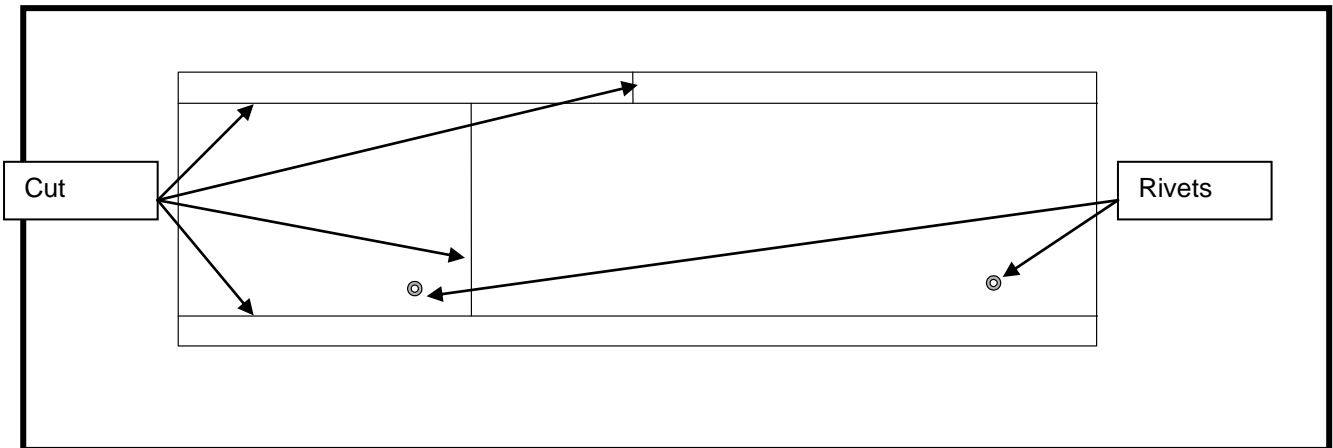
- Squeegee
- Heat Gun
- Razor Knife
- Masking Tape
- Air Release Tool (Straight Pin)
- Rivet Brush



Temperature

The air temperature, decal temperature and the surface temperature must be within 10° - 32°C.

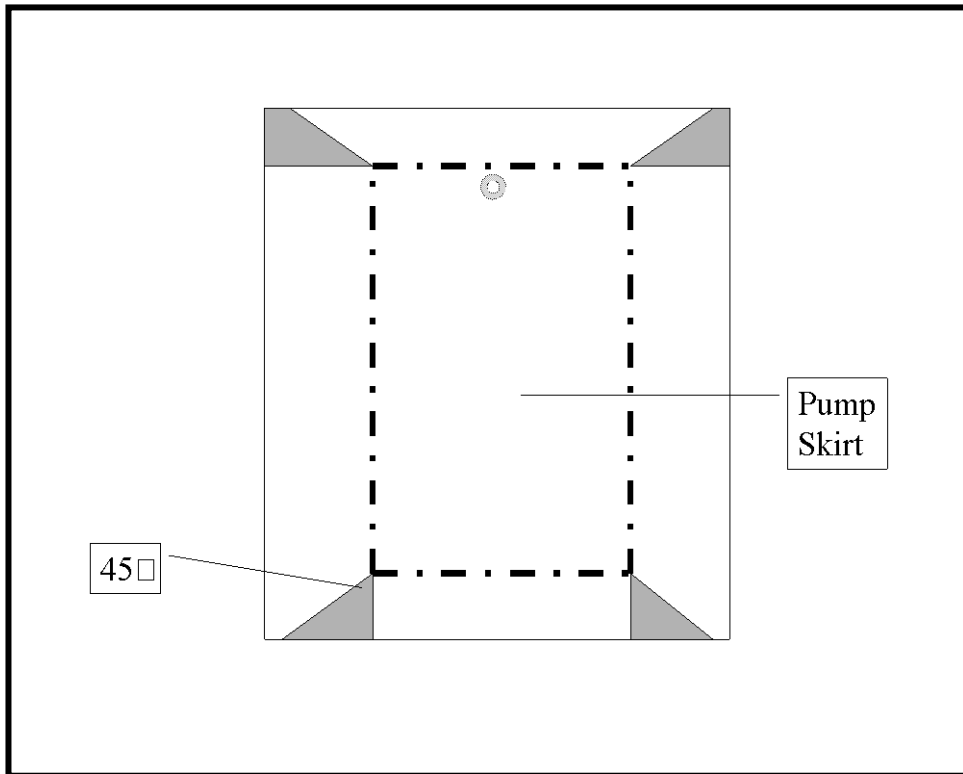
Application Procedures – Canopies



Caution: Do not use application fluid or the 'wet method' during installation. Water or application fluid not properly squeezed from underneath the film can remain between the substrate and the decal, thereby reducing ultimate adhesion.

1. Make sure the surface is properly cleaned as described above.
2. Air and surface temperatures must be above minimum application temperature.
3. Use firm overlapping strokes when applying decal.
4. Position material as necessary to utilize material in the best fashion.
5. Pull back a small amount of liner as needed to position, and 'tack' material in place.
6. After ensuring that material is positioned correctly, begin removal of liner in a continuous manner, ensuring a taut and unwrinkled surface.
7. As liner is removed, continue with long even strokes with the squeegee.
8. Cut all (vertical and horizontal) seams, and re-squeegee edges.
9. As appropriate tuck material under the upper edge to ensure a smooth even continuity of colour.
10. If necessary to tuck the top edge of the flat panel under the frame, as appropriate, apply additional material to the upper frame, this step must be decided by the applicator to ensure the best overall appearance.
11. Remove premask and re-squeegee all surfaces, with special attention to cut seams and overlapped edges.
12. If rivets or screw heads are present, it will be necessary to conform the film to the rivet.
13. Puncture the film surrounding the rivet with a pin or air release tool in several places (do NOT use a knife).
14. Press entrapped air toward puncture marks with a finger, or squeegee.
15. Using a rivet brush, begin short strokes over the rivet eliminating additional air around the rivet.
16. Use a heat gun and apply heat to the rivet (use caution so as not to burn or melt film).
17. Place the rivet brush over the rivet head while still warm, and begin using a circular motion to achieve final bond of the film to the rivet and surrounding flat areas.
18. Inspect the entire area for any entrapped air or bubbles.
19. Puncture any bubbles with a pin or air release tool, press air toward the puncture.
20. Inspect entire graphic for sound adhesion to the substrate and re-squeegee as necessary.

Application Procedures – Pump Skirts



Caution: Do not use application fluid or the 'wet method' during installation. Water or application fluid not properly squeezed from underneath the film can remain between the substrate and the decal thereby reducing ultimate adhesion.

1. Make sure the surface is properly cleaned as described above in 'surface preparation'. Be sure to clean both the front and back of the pump skirt where the decal will be applied, and also wrapped around back.
2. Apply the front surface (face of pump skirts).
3. Cut graphics (film) on solid lines.
4. Remove the shaded area of graphics.
5. Apply film to the bottom side of the pump skirt. Wrap excess film around the back.
6. Apply film to the sides of the pump, wrapping excess film on the backside of the pump skirt.
7. Fold bottom of film on each side over the film on the bottom surface.
8. Apply top surface of film, and wrap back edge.
9. Fold the ends of the top piece over the film on both sides.
10. Trim as necessary to remove excess film.
11. Cut film around lock recesses, and as necessary to accommodate hardware.
12. Whenever possible, wrap excess material in recesses around to the backside of the pump skirt.
13. Be sure to make smooth even cutouts and avoid jagged edges.

Note: Each and every pump skirt is different, and should be evaluated prior to application to ensure best use of material, and to obtain the greatest aesthetic value of the graphics. Dents, paint problems, and prior decals should be considered and repaired or removed to eliminate any issues in graphic performance.

For further information, contact your local Avery Graphics representative.