# METAL ROOF WALKWAY INSTALLATION

## STANDING DEAM ROOFS – WITH HANDRAILS

**General:**

1. Parallel runs go in the same direction as the roof ribs.
2. Perpendicular runs go at a ninety degree angle to the ribs.
3. Grating assemblies start with a male/female grate and end with a male/male grate.
4. Grate sections may be cut where necessary.
5. Clean roof of any metal debris or shavings.
6. Grate section and pipe ends should be coated with an anti corrosive coating to prevent rust.

**Parallel Runs:**

1. Locate Parallel Support plates where shown on the roof plans. Typical spacing is five feet on center (do not exceed six foot spacing or cantilever grates beyond a support more than 12 inches). Place plates so grate section ends butt over the center of a support plate. Align the plates with the major roof ribs as shown on the drawing and locate the handrail base support side as shown on the plan drawings. The support plates are typically pre punched to accept the base plate support, however, the base plates (and doubler brackets) can be relocated if necessary so the hand rail is near the grates.
2. Fasten the support plates using S-5 clamps as shown on the drawing. Do not over torque the fasteners.
3. Place the plank grating assemblies over the support plates so grate section ends butt over the center of a support plate. Leave sufficient space where the railing base and doubler brackets are to be mounted.
4. Place “M” Clips at each plank end and middle located so a fastener may tie into a support section. Do not use one M clip to splice planks together. Use one clip on either side of the splice. Each 10’ plank receives three M Clips.
5. Fasten the planks with 3” long self drilling fasteners and M clips into the supports taking care not to penetrate any roof panels.

**Perpendicular Runs:**

1. Locate Perpendicular plank gratings where shown on the roof plans starting at a ledger angle at the Parallel plank run. Place planks so the slot opening aligns with a major rib. S5 clamps are located no more than 5’ on center (4’ on a typical SS roof). Each plank is secured to an S5 clamp using a M8-50 bolt, a thin wall 1/2” socket, and an M washer.
2. Fasten ledger angles at intersections of perpendicular runs and parallel runs using 12-14 x 1-1/4” self drilling fasteners.
3. Where plank section ends butt against each other, install a splice channel with four self drilling fasteners into the sides of the outboard planks. Then fasten the ends of each plank at the first complete slot into the splice using M clips and 3” self drilling fasteners. Take care not to penetrate any roof panels.
4. Place the Perpendicular Support plates under the plank gratings every 5 feet or as shown on the plan. Locate the handrail base support side as shown on the plan

drawings. Fasten the support plates using M clips, and ¼" bolts into the nut attached to the plate. Each plank should have at least one M clip and bolt assembly. Leave sufficient space where the railing base and doubler brackets are to be mounted.

**Handrail:**

1. Secure the doubler bracket and handrail base flange to the parallel and perpendicular support plates as detailed in the plan. The support plates are typically pre punched to accept the base plate support; however, the base plates (and doubler brackets) can be relocated if necessary so the hand rail is near the grates. Insert the pre cut 42" vertical pipes into the base flange and secure the set screws.
2. Mark the vertical pipe so the mid rail is positioned so the vertical openings are less than 21 inches. Determine which side of the vertical pipe the mid rail will be placed.
3. Place the mid rail fittings in place and loosely tighten the set screws. Cut lengths of pipe so that the joints meet within the fittings (use fittings suitable for joints only), field connect the pipe (by others), or connect with optional couplings.
4. Place the top rail fittings on the vertical pipes and loosely tighten the set screws. Cut lengths of pipe so that the joints meet within the fittings (only use fittings suitable for joints), field connect the pipe (by others), or connect with optional couplings.
5. Tighten and secure all fitting set screws once the assembly is properly positioned.