

LMCURBS

Roof Walk System

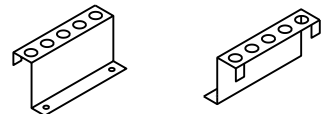
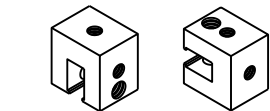
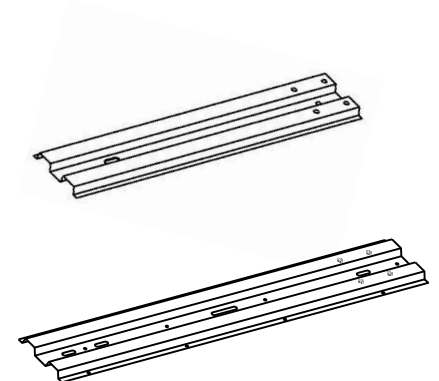
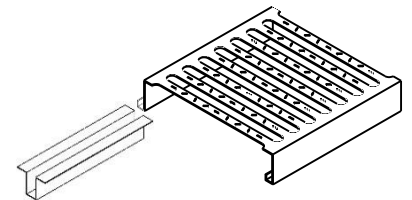
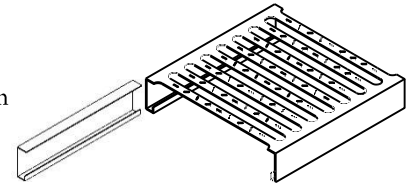
Installation Instructions

Standing Seam Metal Roofs

GENERAL NOTES:

The interlocking roof walk system is comprised of several components.

- 1) **Grating M/M:** 12" Wide x 10' or 20' Long Anti-skid - male/male – both legs turn inward.
 - a) Material: 18ga. planking in G-90 Galvanized with 2-1/2" leg height.
 - 2) **Splice, Grating – Male**
 - a) Material: 16ga. G90 Galvanized Grade 50
 - 3) **Grating M/F:** 12" Wide x 10' or 20' Long Anti-skid - male/female – one leg turns inward & one leg turns outward for interlocking with the male/male grating.
 - a) Material: 18ga. planking in G-90 Galvanized with 2-1/2" leg height.
 - 4) **Splice, Grating – Female**
 - a) Material: 16ga. G90 Galvanized Grade 50
 - 5) **Support Plate** (A variety of plate configurations based on seam spacing & width of walkway.)
 - a) Material: 16ga. G90 Galvanized Grade 50
 - 6) **S-5! Mini Clamps.** (A variety of clamps based on the metal roof profile in which the system is to be attached to.)
 - a) Mill finish 6061 T6 Aluminum with Stainless Steel hardware
 - 7) **Hold-Down Clip:** 5" Wide x 2.5" Tall
 - a) Material: 16ga. G90 Galvanized Grade 50
- b) **Tek Screw:** #12 x 1" Unslotted Drive Hex Washer Head Epoxy Finish #3 Point
- c) Material: 410 Stainless Steel Self-Drilling Screw.



The interlocking system is installed in multiples of 12" widths, with 24" being most common.

i.e. 2 grating = 24" walkway, 3 grating = 36" walkway, 4 grating = 48" walkway.

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WARNINGS:

***** EXTREMELY SHARP, ALWAYS WEAR PROPER PPE WHEN HANDLING, CUTTING & INSTALLING.**

***** DO NOT STAND OR WALK ON GRATING UNTIL PROPERLY FASTENED TO THE ROOF SYSTEM.**

***** USE FALL PROTECTION WHILE WORKING AROUND BUILDING EDGES AND OPENINGS IN ACCORDANCE WITH OSHA REGULATIONS.**

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SECTION 1: LAYOUT & ROOF CLAMP ATTACHMENT

- 1) Determine the location/layout of the grating for both perpendicular (across slope) & parallel (up/down slope) runs.
- 2) Determine the number of clamps per support plate and the spacing between mounting holes.
- 3) For perpendicular installation, attach roof clamps to the roof panel's standing seam at the beginning and end of each run.
 - a) Install a string line between clamps.
 - b) Install clamps per manufactures installation instructions and using spacing chart below as a guide.
 - i) The roof clamp set screw tension should be verified using a calibrated torque wrench between 160 and 180-inch pounds when used on 22ga steel and between 130 and 150-inch pounds for all other metals and thinner gauges of steel.
 - c) A support plate shall be installed at the beginning and end of each run or the nearest roof seam to prevent excessive cantilevering. (do not exceed 12") This may require the run being installed to next seam.
 - d) Shorter runs will require supports plates to be installed closer than listed below.

Roof Seam Spacing	Support Plate Spacing
12"	60"
16"	64"
17"	68"
18"	72"
20"	60"

Roof Seam Spacing	Support Plate Spacing
24"	72"
30"	60"
32"	64"
36"	72"
42"	42"

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- 4) For parallel installation, attach roof clamps to the roof panel's standing seam at the beginning and end of each run. Additional clamps shall be installed along the seam as needed but should not 72" intervals.
 - a) There should be a support plate at the beginning and end of each run.
 - b) For runs greater than 6' an intermediate support plate shall be installed.
 - c) For runs greater than 10' there shall be a plate approx. every 5' allowing end-joints to land on top of the support plates.
- 5) When a perpendicular & parallel run meet in a "T" shape, a support plate assembly will be required as near to the intersection as possible. Preferably under the connection joint.
- 6) When a perpendicular & parallel run meet in a "L" shape, the support plate on the parallel run will need to be set back a few inches to allow the perpendicular support plate to mount properly.

SECTION 2: MOUNTING SUPPORT PLATES

- 1) If installing a handrail system, it is better to go ahead and secure the 45SBC-8 to the support plate using 4 ea. M8 x 30mm bolts & flange nuts before mounting the support plates. Position the 45SBC-8 so that the set screws are away from the grating.
- 2) Using a 13mm socket, attach the support plates to the secured roof clamps using the flanged head M8 bolts that are provided with the clamps. On larger jobs, a 1/2" drive electric impact will expedite this work. Tighten M8 bolts to 13-foot pounds (18 Nm).

SECTION 3: MOUNTING & SECURING GRATING

- 1) Set first 12" wide section of male/female grating (here after referred to as "M/F") on top of support plates and secured with a hold-down clip and 2ea. #12 x 1" Tek screws at each support plate. The female leg of the grating should be placed to the inside of the run. When installing runs greater than 10', the end-joints should be staggered. Install the first section of M/F at the full 10' length. Each subsequent joint of grating shall be secured together utilizing the provided splice plates and #12 x 1" Tek screws. The male splice plate will wrap around the bottom of the male leg and roll over the top edge of the grating. The female splice plate will

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cradle the female leg with the flanges against the bottom of the grating rungs. Secure the splices using 3ea. #12 Tek screws on each side of the joint. The male splice is secured through the splice and into the side of the grating. The female splice is secured by screwing through the top of the grating into the flange of the splice plate. The flange should be temporarily secured to the bottom of the rungs with locking C-clamps during this process. If the joint coincides with a support plate, a hold down clip should be installed in lieu of a splice plate.

- 2) Interlock the next section of male/male grating (here after referred to as “M/M”) to the first section. This is completed by placing the male leg into the female leg. When installing runs greater than 10’, the end-joints should be staggered. Cut the first section of M/M so the end-joint lands on a support plate and is shorter than the first M/F piece of gating. Each subsequent joint of grating shall be secured together utilizing the provided splice plates and #12 x 1” Tek screws. The male splice plate will wrap around the bottom of the male leg and roll over the top edge of the grating. Secure the splices using 3ea. #12 Tek screws on each side of the joint. The male splice is secured through the splice and into the side of the grating. The female splice is secured by screwing through the top of the grating into the flange of the splice plate. The flange should be temporarily secured to the bottom of the rungs with locking C-clamps during this process. If the joint coincides with a support plate, a hold down clip should be installed in lieu of a splice plate.
- 3) If installing a walkway greater than 24” wide, the M/F grating will be installed first. The male/male is always the last to be installed.
- 4) Place 1 hold down clip on the outer edge of each side of the grating assembly at each support plate crossings. Secure with 2ea. #12 x 1” Tek screws per bracket. Use caution to not overtightened & strip the screw.
- 5) If installing a walkway system greater than 24” wide, place an additional hold down clip through the rungs of the interior grating. The knurls in the grating should rest through the large round holes in the hold down clip. Secure with 2ea. #12 x 1” Tek screws per bracket. Use caution to not overtightened & strip the screw.

SECTION 4: MOUNTING & SECURING HANDRAIL SYSTEM.

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- 1) The 45SBC-8 base plate should have been mounted during Section 2 above. If not, go ahead and secure the 45SBC-8 to the support plate using 4 ea. M8x30mm bolts & flange nuts before mounting the support plates. Position the 45SBC-8 so that the set screws are away from the grating.
- 2) Install balance of the handrail system in accordance with the manufactures Speed-Rail® installation assembly/instructions. Beginning with Step 3. (See Below)

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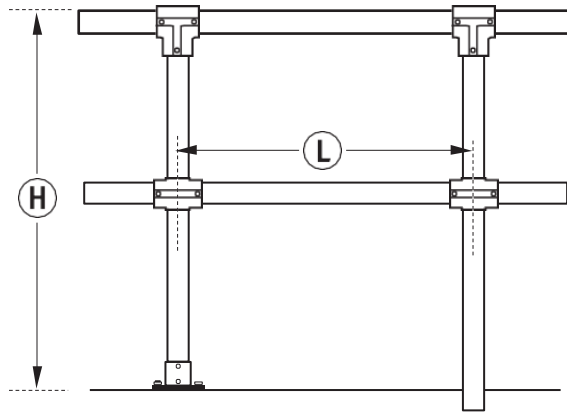
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Speed-Rail® by Hollaender®

Step 3 - Determine post and mid-rail cut length as shown below and cut quantity required.

1-1/2" IPS

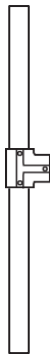


Top mount post cut length: $H - 2''$ (51mm)

Mid rail length: $L - 2''$ (51mm)

Step 4 - Slip mid rail fittings onto all posts; position properly and tighten set screws.

End Post



Line Post



Mid Rail Fittings

Straight Run PN: 5E-8 (Tee-E)

Corner PN: 11E-8 (Side Outlet Tee-E)

Straight Run PN: 7E-8 (Cross-E)

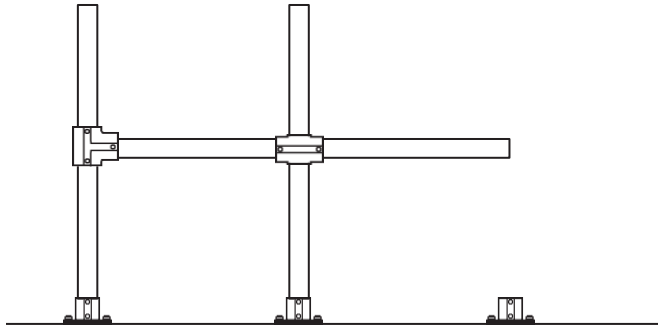
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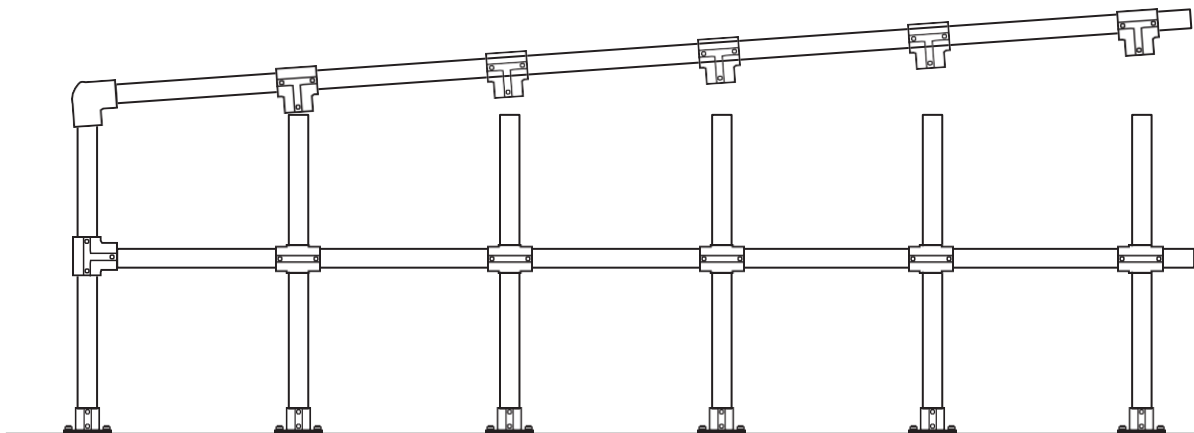
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Step 5 - Starting at end or corner, place post into flange and insert appropriate mid rail. Install each subsequent post and mid rail throughout the length of handrail.



Step 6 - Place the appropriate number of fittings on the top rail but do not tighten. Starting with the first post, attach the first top rail fitting and slide other fittings to the correct position.



Top Rail Fittings

- End Post Straight: 3-8 (Elbow)
- End Post Corner: 9-8 (Side Outlet Elbow)
- Line Post 5E-8 (Tee-E)

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Step 7 - Once the top rail is installed, plumb rail and tighten all set screws starting with flange and working up. Set screws should be tightened to approximately 16 ft. lbs. If torque wrench is not available, tighten set screw until it contacts pipe then tighten one more full revolution.

