American Metalcraft Inc.

Installation Procedures
Finish Maintenance

Contents

American Metalcraft Inc. Panel Installation Layout

Layout is the single most important procedure involved in the proper installation of AMI panels.

Layout involves accurately measuring and marking the area to be covered with panels and insuring that all substrates involved are within acceptable tolerances per the plans and specifications.

The panels should be installed with reference to three (3) critical working points as follows:

1. Elevation

Prior to installing the AMI panels, locate the benchmark established by the General Contractor to insure proper elevation. This procedure is very critical for correct panel alignment.

2. Panel/Joint Layout

After the accurate elevation is determined, lay out the panel joints to the critical areas. This procedure will allow you to determine if any panel adjustment is required (i.e., horizontal panel joints should align with horizontal window mullions, vertical panel joints should align with vertical window mullions, outside and inside corner panels should align properly). The majority of AMI joint systems are designed for one-eighth inch (1/8”) plus/minus (+/-) tolerance. This will allow a considerable amount of adjustment for long panel runs.

3. Exterior Wall Building Plane

Building centerlines established by the General Contractor provide a reference point allowing panel offset lines at the building perimeter. These offset lines allow panel plane alignment within specified tolerances.

Exterior Wall Building Plane (cont)

Once the panel installer feels confident that the working points are acceptable, panel installation can commence.

The AMI panel is a pre-engineered and preformed wall panel that is designed to fit a custom design criterion. It is imperative that substrates and interfacing materials conform to required tolerances in order for the panels to meet the design criteria. The acceptable tolerances vary as follows, depending on the area size to be covered:

The smaller the covered area, the tighter the tolerances will be. The tolerance can be as tight as plus/minus (+/-) one-sixteenth inch (1/16”).

For larger areas or long panel runs (and stacking), the tolerance can be looser due to the joint quantity. The tolerance, which can be acquired from the panels at the joint, is a maximum of one-eighth inch (1/8”) per joint, unless the panel joints are required to align with vertical or horizontal design lines (i.e., window mullions, masonry joints, etc.).

Panel Installation

The two basic methods for fastening the AMI panels are:

1. Front Fastening

The AMI panels have factory cut slots and holes to allow the installer to use self-drilling, self-tapping screws to attach the panels to the provided subgirts.

With AMI's rainscreen system, the bottom of the panels will have tabs that the installer will align with the slots in the top of the panel located below. The installer will then use self-drilling, self-tapping screws to attach the top of the panels to the provided subgirts.

2. Hanger Procedure

This system provides extrusions attached to the back of the panel. The "Z" extrusion allows the panel to be hung on "J" or "Z" channels, which are field installed to various substrates.

NOTE: The "J" or "Z" channel elevation, or working point is normally located on the drawings. This allows the panel to be installed at the correct elevation.

AMI panels have a variety of fastening systems; however, all panels can be categorized into one of the above procedures.

To maintain fairly consistent panel joints, the installer should make various sizes of shims (i.e., 9/16" joint should have shims that are 9/16" wide to 7/16" wide to 11/16" wide).

Panel Installation (cont)

The AMI panel is a custom designed and preformed wall or roof panel. It should never require any field rework. If an installer feels that an AMI panel requires any type of field rework, he should first notify your AMI project manager. If the installer takes it upon himself to rework an AMI panel, the Warranty could be void for this panel. Prior approval by your AMI project manager is mandatory.

When using glazing suction cups during panel installation, insure that the cups and the panel face skins are completely clean of dirt and debris. Peel coat should be removed from the area of the panel to which glazing suction cups will be applied.

Periodical Checks

During installation, the panel installer should periodically check dimensions between the AMI panel and control points to insure that the panel installation is coordinated with proper panel layout and control points (i.e., window mullions, door jambs, masonry joints, etc.)

Periodic checks allow the installer to recognize possible dimensional problems and allow the panels to be slightly adjusted at the panel joints as the panes are being installed.

Panel layout, periodical installation dimensional checks and thorough understanding of the panel installation drawings are required to properly perform AMI panel installation.

The final ingredient of paramount importance is the skill and quality of workmanship of the panel installer's work force.

Important Notes To The Installer

Please refer to the installation drawings or call your AMI project manager with questions regarding panel installation. It is expected that experienced personnel will be installing the AMI panels; therefore, a great deal of the success of the installation rests with the installer.

General Instructions

1. Do not overdrive or under drive screws and/or fasteners.

2. Do not leave metal shavings.

3. Do not sign receiving documents without checking the package for damage (Which might indicate damage to the materials) and noting the same on the documents.

4. Do document the damage with photographs and/or video, and notify your AMI project manager immediately.

5. Do review the Bills of Material versus materials received to insure that the quantities and the materials are correct and adequate.

6. Do insure that the structure is within acceptable tolerances to receive our materials prior to starting installation.

7. Do follow recommended fastening procedures.

8. Do follow handling and storage recommendations.

9. Do insure that all moisture occurring at panel joint lines is directed to proper drainage areas.

10. Do use touch up paint sparingly by applying it to the exposed primer or bare metal only with an artist brush or toothpick. Do not blob or smear it on.

11. Do plan ahead to allow for a reasonable amount of time for panel layout, panel shakeout, installation dimensional corrections, and project *punch-out.*

12. PVC should be removed with care as to not bend or twist the panel.

Cleaning and Maintenance at the Construction Site for the American Metalcraft Inc. Aluminum Panel

Absorptive wrappings such as interleaving paper, cardboard and other materials are used to protect aluminum during onsite storage. Such material should not be allowed to become wet because water soaked paper may discolor aluminum. Tarpaulins or plastic sheeting must be used to protect the aluminum. This is particularly important on construction jobs where dirt, dust, carbon steel particles from grinding or welding, etc., in the presence of moisture may cause discoloration. Indoor storage is preferred.

Any contact with concrete or mortar containing chlorides must be avoided. This is particularly true when cleaning or curing masonry with strong acid solutions.

Protective coating such as peel coat has an adhesive coating that adheres to the aluminum panel after removed a thorough initial cleaning is therefore required. The recommended practice is as follows:

1. The surface is cleaned with detergent by wiping with a soft cloth with light strokes. Always wipe with the metal grain.

2. Rinse with clean clear water until all detergent is removed.

3. Never use a detergent with an acid base. This can permanently stain the aluminum finish.

Handling Procedure

1. After cutting the metal banding straps from a box of panels, insure that they are removed from the panel area. This will decrease the possibility of scratching the AMI panels.

2. When removing panels from a box and stacking in another area, always stack face to face and back to back. (Always leave back face exposed on top panel and tarp any panels exposed to weather.)

3. Never allow any trade to use a stack of AMI panels as a work table or lunch table.

4. Never remove the protective peel coat until after panel installation. The protective coat should never be allowed to remain exposed to sunlight for more than (10) days.

5. Never lift panel by the extrusions, or by stiffeners. Have a firm grip of the entire panel thickness.

6. At the end of the day, always cover or tarp the panels if exposed to weather.

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