WHITE PAPER

The MCM Team

Metal Composite Material (MCM) cladding systems are an attractive and popular way for architects to present their latest masterpiece. Clean, colorful and tough enough to protect everything inside, from everything outside, MCM is the "cladding of choice" for many of the world's most beautiful buildings. It is not surprising then, that it takes a team of specialists to produce a high quality finished product.

While there are many details and people involved, the major participants involved in producing the finished cladding system are the MCM Manufacturers, the MCM Fabricators and the MCM Installers. Typically the MCM Manufacturers and the MCM Fabricators are separate business entities, but the MCM Fabricator and the MCM Installer are often the same.

The major functions of each of the critical participants include:

MCM Manufacturers

1. Produce MCM in a flat sheet by taking an extruded plastic core and bonding a metal skin to each side using a continuous production process.
    - The metal skin, typically aluminum coil, is either coil coated by the MCM manufacturer or obtained pre-finished with a high quality coating meeting strict architectural requirements (most often AAMA 2605). The finish is always applied prior to the bonding process.
    - Finished aluminum coil (or other metal skin material, such as copper, zinc, stainless steel or titanium) is bonded to an extruded plastic core using a precise combination of heat and pressure to bond the 3 layers together.
    - Various types of core formulations, including fire retardant materials, are available to meet the performance requirements of the building code.
    - The MCM is cut to length with 12' and 16' being most common. Panel widths are generally based on skin coil width. 50" and 62" are most common.
2. A production material testing program is continuously conducted to ensure quality in product performance and appearance
3. Independent third party auditing and test certification is conducted.
4. Testing and test certifications of the MCM sheet are conducted to show that the material and assembly systems meet the building codes (as required).
    - An independent third party evaluation of production, testing, and quality is often completed to create an Evaluation Report indicating the product capabilities and level of code compliance.
5. Primary manufacturing facilities are located in North America to provide flexibility in production.
6. Finish quality, bond integrity, and appearance (flatness) are typically warranted by the MCM Manufacturer.

MCM Fabricators

1. Design and fabricate panel systems to meet the defined project performance requirements in the areas of:
    - Water Penetration
    - Structural Performance
    - Energy Performance
2. Testing of cladding systems including wind, water and fire performance to meet specification and local code requirements.
3. Create project drawings and provide engineering calculations showing the adequacy of the panel system design for the project. Often provide or source Professional Engineer's seal on drawings when required by local jurisdiction or project Engineer of Record.
4. Create shop drawings required for each panel to be fabricated and identified throughout the production and erection process.
5. Design, source and fabricate structural components such as extruded aluminum, fasteners and clips required to fabricate MCM sheet into cladding panels capable for installation on a structure.
6. Shop fabricate MCM sheet into cladding panels and package finished panels to be shipped to jobsite.
    - Cladding system typically consists of panels using perimeter aluminum extrusions or clips with either an integral or separate support system. The support system attaches the cladding panels to the wall substrate or studs.
7. Create construction sequence drawings and instructions to be used on site leading to an efficient and coordinated installation of the entire cladding assembly
8. System performance such as structural loading and deflection, air/water intrusion, and thermal performance of the system components are typically warranted by the MCM Fabricator.

MCM Installers

1. Receive and coordinate material deliveries to the jobsite from the MCM Fabricator.
2. Coordinate with other trades the installation of the fabricated MCM cladding system.
3. Provides materials and labor to seal joints and produce required weather tightness of the designed system.
4. Coordinate and execute any final field measurement or fabrication of panel components that are required to be produced on site.
    - This process may require work done directly in the field or work coordinated with the MCM Fabricator that is then delivered to the jobsite for installation by the MCM Installer.
5. Final project close-out items that are typically a joint effort between the MCM Installer and Fabricator.
6. Workmanship and installation per MCM fabricators specifications is typically warranted by the MCM Installer.

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BUILD LEGACIES METAL

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- Technical guidance
- Product certification
- Educational and awareness programs
- Advocating for the interests of our industry
- Recognition of industry-achievement awards
- Monitoring of industry issues, such as codes and standards
- Research to develop improved metal construction products
- Promotional and marketing support for the metal construction industry
- Publications to promote use of metal wall and roof products in construction

For more information, please visit the MCA Web site at www.metalconstruction.org

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