

MS MODULAR

Data Sheet



Prefinished Steel Roof and Wall Profile Without Visible Screws



MS 1

MS 1.1

MS 1.2



DESCRIPTION

Profile designed for both wall and roof installation, offering the possibility to create designs from roof to wall. Vertical installation only. The MS Modular opens the door to an infinite world of design possibilities. This seamless profile will impart a distinctive sense of grandeur to the buildings it clads!

WARRANTY

Since we use a superior grade of steel and an unparalleled painting process that ensures longevity, MAC offers its customers a 40-year Quiet Guarantee.



INSTALLATION WARRANTY

In the event that a problem occurs during the installation of the profiles, it is important to report the situation immediately to your supplier before proceeding with the rest of the installation. For MS Modular profiles, the supplier must be notified prior to the installation of 500 sq. ft. Beyond 500 sq. ft. the installer is responsible for the installation.

PHYSICAL DATA OF THE PROFILE

Dimensions	
Standard length	Customized according to plans and specifications up to 60 ft (18.29 m)
Height (covered) MS 1	19.25 in (488.95 mm)
Height (covered) MS 1.1	15.6 in (396.24 mm)
Height (covered) MS 1.2	11.35 in (288.29mm)
Thickness (width)	1.0625 in (27 mm)
Weight (per panel)	26 j 1.06 lb/ft ² (0.48 kg/ft ²) 24 j 1.32 lb/ft ² (0.6 kg/ft ²)
Screw holes (openings)	0.75 x 0.1875 in (19 mm x 4.8 mm)
Screw holes intervals	1.5 in (39.1 mm) OR 2.25 in (57.2 mm)
Available gauge Galvanized Z275 (G90) 33SS (230) grade steel as per ASTM A653/A653M	
Gauge 26 (roof) & 24 or 22 (wall)	26 g 24 g 22 g (wall on demand)
Packaging details	
Single package size MS1	33 in x 31 7/8 (max) x custom length 50 panels
Single package size MS 1.1	33 in x 31 7/8 (max) x custom length 50 panels
Single package size MS 1.2	26 1/2 in x 31 7/8 (max) x custom length 50 panels
Installation direction	
Installation orientation	vertical

TESTS

WIND RESISTANCE

Resistance to overload due to uniformly distributed static pressure-related winds, according to ASTM Standard D5206-06a.

Resistance type	Pressure
Breaking pressure of a component Failure mode - nailing tape (16 in c/c)	2872 Pa (60 psf)
Breaking pressure of a component Failure mode - nailing tape (24 in c/c)	2872 Pa (60 psf)

FIRE RESISTANCE

- Tested to ASTM-E2768 for use in non-combustible construction in Wildland Urban Interfaces in California (required for WUI listing).
- Tested as per CAN/ULC-S135 for use in non-combustible constructions.
- Tested as per ASTM E84 for non-combustible construction (Class A category).
- Classified 0 Flammability Hazard, according to the NFPA Rating Explanation Guide.

TYPE OF TEST	DESCRIPTION	STATUS
CAN/ULC-S135	Fire resistance (CAN)	Compliant
ASTM E84	Fire resistance (USA)	Class A
W.U.I.	Wildland Urban Interface accreditation	Inscription 8140-2358-0500
ASTM D5206-06A	Maximum sustained pressure	2872 Pa (60 psf) 16 in c/c 2872 Pa (60 psf) 24 in c/c 1995 Pa (41.7 psf) 36 in c/c 1436.4 Pa (30 psf) 48 in c/c
ASTM E330	Plank deflection under wind pressure (Tested for these variables, the results are available upon request)	16 in c/c + 1920 Pa - 1949 Pa 24 in c/c + 1783 Pa - 1933 Pa
ASTM E283	Air leakage of the wall assembly	Compliant
FBC	Florida Building Code accreditation	In progress
TDI	Texas Department of Insurance accreditation	Non-tested
Miami Dade, ASTM E1886, E1996, TAS 202 & TAS 203	ZHLA.63 Hurricane Resistance accreditation	Non-tested

RESTRICTIONS ON ROOFING SLOPES

- MINIMUM SLOPE 10° or 17.03% (~ 2/12 pitch) for pre-finished steel roof with TEXTURAL III paint system (colors based on polyurethanes)
- MINIMUM SLOPE 15° or 26.75% (~ 3/12 pitch) for pre-finished steel roof with TEXTURAL IV paint system (colors at the base of PVDF)
- MINIMUM 18° SLOPE or 32.49% (~ 4/12 pitch) for pre-finished steel roof with PERSPECTRA paint system PLUS (colors based on polyesters)
- For slopes less than 3/12-manual installation recommendation of MAC sealer inside staple (all along the groove of the female part of the staple)

* Sealing against the risk of water infiltration due to the hydrostatic pressure of water during snowmelt.

CHARACTERISTICS OF THE PROFILES

- No perforations and no visible screws
- No joints along the length of the panels
- Non-combustible product
- Increased wind resistance
- MS 1 19.25" width
- MS 1.1 15.6" width
- MS 1.2 11.35" width
- 24- and 26- gauge (22-gauge on demand)

ENVIRONMENT

Placing the environment at the heart of our priorities, all of our products are made from 86% recycled material and are 100% recyclable at the end of their life, in addition to contributing to the following LEED points:

- Recycled steel content (LEED – Credit 4.1 & Credit 4.2)
Valid for all coatings (roofs and walls)
- Reduction of Heat Islands (LEED – Credit 7.2)
Valid for roof coverings with slopes > 2/12 depending on the solar reflectance index (ISR or SRI greater than 29) corresponding to the chosen color (roofs only)



ASSEMBLY

- Comply with the manufacturer's requirements, recommendations, and written specifications, including any available technical bulletins such as the installation guide, installation videos available on the manufacturer's web page, and instructions in the web page and instructions appearing in the product catalog.

INSTALLATION SURFACES

- ROOFING installation: on plywood (minimum thickness 5/8 in) covered with a high temperature membrane compliant for steel roofs.
- WALL installation: on plywood, install on wood furring (1 in x 3 in) (25,4 mm x 76.2 mm) or on metal furring (Z bar) 18 gauge or 20 gauge, if needed.

Note: All furring must be ground horizontally and vertically to allow installation according to accepted practice and to achieve a good final installation result.

FIXATION

- For each type of installation (wall or roof), drip flashing must be installed behind the furring and the weather barrier for the MS 1, MS 1.1 & MS 1.2 profiles. It must be carefully levelled, as this will determine the straightness of the work.
- Before starting the installation, refer to the videos and installation guides to make sure you have all the tools and accessories you need to begin.
- A methodical verification of the work must be done every 3 or 4 sheets in order to detect possible anomalies.
- Continuous installation of drip moldings, starter moldings, inset/outset corner pieces, corner pieces, borders, soffits, moldings adjacent to doors and windows according to the manufacturer's recommendations.
- Set a screw every 20, 22, or 24 inches depending on the degree of slope and exposure to the winds.
- For wall installations, screws should be set every 16 to 24 inches.
- Install a wide strip of manufacturer-recommended sealant on the back of the center of the panels at intervals of 24 inches or on the substructures designed to receive the panels.
- Allow an additional 3 inches to make the bends. The ends of the panels should be folded after the starting moldings and the wings of the grooves. The same applies to the panels at the ends, which must also be stapled along their length upon starting moldings. The ends of the panels that enter the pocket of the ridge cap or other moldings laid in advance must be folded (towards the open air) and sealed at the junction of the staples and the junction of the ridge cap or moldings.
- Never leave the cut edge of the panels exposed on the surface. Normally, the cut edges must be folded on themselves, stapled, or covered by adjacent moldings. Requires sealant application for shallow slopes, near grooves, or for increased safety against high winds and noise vibration.
- When there are several floors to be covered, it is important to put a horizontal expansion molding on all floors if the structure is made of wood, or at every 30 feet if the structure is made of steel.
- When necessary, cut the panels into lengths, using only a specialized MAC guillotine, sheet metal scissors, or a steel nibbler. Cold-cut metal rotary blades made by Diablo are the only brand tested and recommended by MAC. Please refer to the cutting recommendation leaflet for all details and models.
- Installation of MAC siding products on ZIP system Insulated R-Sheathing Panels, or on other dual composite panels made from softer materials than wood, is not recommended. This type of panel doesn't offer a good rigid mounting surface for the MAC products and will allow for movement and deformation under varying weather conditions and levels of sun exposure, and lead to oil canning.

FASTENING

MAC is proud to offer you a screw system adapted to its profiles. The screws used to screw our products must meet the STM B-117 2000h standard. The use of MAC screws designed for our profiles is strongly recommended.

Use the MAC High-End Century K-LATCH Screw or MAC Self-Drilling K-LATCH Screw depending on the type of furring or surface to be fastened.

The screws should be set with moderate contact (pressure) on the clip part of the panel to avoid impeding the metal expansion. The screws must not exert any upward or downward pressure to avoid deforming the siding or opening the joints. A systematic check of the work must be done every three or four panels heightwise to ensure any possible anomalies are detected. Remove the protective film from the siding prior to installation to facilitate a good visual inspection of the quality of the installation and in order to make appropriate corrections as installation progresses.



A058.250
K-LATCH High-End
Century Screw
1.25 in



A053.250
K-LATCH
Self-Drilling Screw
1.25 in

ACCESSORIES & MOLDINGS

With an eye for detail, MAC offers a series of accessories compatible with its profiles to ensure a perfect finish. Discover our moldings, arches, soffits, vents, screws, and snow gates offered in our unique color series.

All standard moldings such as transition trim, inside/outside corners, and drip moldings are available from the MAC manufacturer or distributors in 10 ft (3048 mm) lengths. Please refer to the website for the complete molding and flashing guide. Custom moldings are available in 10 ft (3048 mm) lengths upon request. They can be manufactured by MAC or by a forming company from flat rolls supplied by MAC.

RESOURCES

To help you in the realization of your project, we have made all of the CAD, REVIT, and DWG drawings, as well as the videos and technical guides of our profiles, available for you to use on website. Find these resources in the PRO Space of each.

