

# The MR-24<sup>®</sup> Difference

Explore the Butler Difference





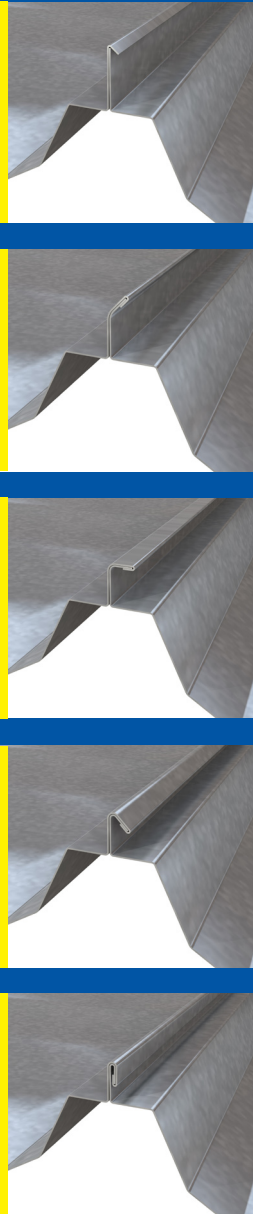
# The MR-24<sup>®</sup> Difference

For 115 years, Butler Manufacturing™ has maintained a reputation for quality in the building industry. Using only the best materials and innovative procedures, we are able to provide our customers with buildings that will look as great as they perform for years and years to come.

To maintain the highest standards of excellence, we've developed several product advantages known collectively as "The Butler Difference."

The MR-24<sup>®</sup> roof system is part of this difference and is just one of the reasons why the Butler name is respected around the world. Since its introduction in 1969, the MR-24 roof system has accumulated an outstanding record of reliability. This record has been validated time and again by successful tests conducted in accordance with the most demanding, recognized specifications in the industry.

## Acute Attention to Detail



This clip allows the MR-24 roof system to expand and contract with changing temperatures.

### 1 | MR-24<sup>®</sup> Roof Clip

*Allows roof movement.*

The roof clip is the "invisible component" that holds the standing-seam roof panels to the supporting structural members. Because metal roofs expand and contract with daily and seasonal temperature changes, the clip was carefully designed to provide a positive attachment and allow the roof to move freely in both directions. Without this mobility, the roof panels would tug and pull on the clip, a process that will eventually cut into the roof panels, pull out the fasteners or damage the clip, causing the building to be vulnerable to leaks and wind damage.

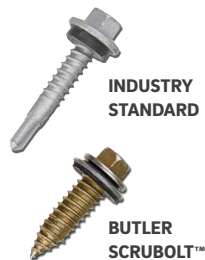


This seaming process uses a heavy duty four-stand, electric, portable roll-forming machine called the Roof Runner.

### 2 | Weathertight Seams

*Protect against leaks.*

The MR-24 roof system is the only standing-seam roof system where the critical 180 degrees of the roof panel seam is mechanically field-rolled to complete a 360-degree Pittsburgh double-lock seam—creating the tightest seam available today. Panels of other roof systems may simply snap together or be crimped, leaving them too weak to withstand foot traffic, wind or snow and ice build-ups. Inside the seam, a factory-applied sealant assures weathertightness in even the most unforgiving conditions.



INDUSTRY STANDARD

BUTLER SCRUBOLT™

### 3 | Stronger Fasteners

*Maintain incredible strength.*

Because other manufacturers don't factory-punch their roof structurals they are generally forced to use self-drilling screws to make critical clip and panel attachments. Butler factory punches structurals, and we use the Butler Scrubolt™ fastener for panel attachment. High-strength, substantial Scrubolt fasteners have twice the pullout strength of industry-standard self-drillers.

The Pittsburgh double-lock seam creates a weathertight roof surface.

# Engineered to Last



## 4 | Kynar 500® and Hylar 5000® Finishes

*Enhance and protect.*

Butler uses the Butler-Cote™ system consisting of a PVDF resin-base fluoropolymer finish on all exterior-painted products. Available in a variety of solar colors, this paint system has set performance requirements for coatings and is the standard exterior finish on all Butler-painted roof panels, wall panels and trim. Its 25-year warranty protects against peeling, cracks, or chipping of the paint finish.



## 5 | Research

*A fully tested system.*

Our Butler Research Center performs quality-control tests of roof materials and components, along with investigating new materials, parts and processes. The use of sophisticated testing equipment enables the staff to predict actual field performance of your building system. Our roof products are rigorously tested and evaluated on an ongoing basis in compliance with our Zero Defect and specific FM Global requirements. Actual 8' x 10' roof and wall assemblies are tested in the Butler® Guarded Hot Box to provide accurate insulating information, rather than theoretical data provided by most building product manufacturers. That means Butler® building systems deliver the energy efficiency they promise.



## 6 | The Butler Builder® Difference

*Another Butler Difference.*

Perhaps the most important Butler Difference is our worldwide network of professional Builders. Your Butler Builder® is a trained, experienced professional who uses Butler systems to build beautiful buildings tailored to your needs. Visit [www.butlermfg.com](http://www.butlermfg.com).



## 7 | Warranty

*Our guarantee of quality.*

The MR-24® roof system is available with a 25-year warranty, not just against perforation but weathertightness as well. With reasonable care and maintenance, it is your 25-year solution to roof problems.



# The MR-24<sup>®</sup> Difference

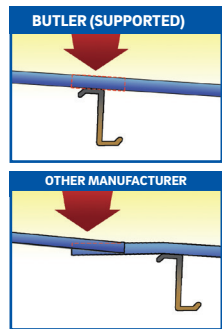


## 8 | Factory Punching

*Creates perfect alignment.*

Proper alignment of roof panels is crucial to roof performance. Poor alignment affects weathertightness and creates problems when installing closures, roof accessories and trim. All roof panels and structural members of the MR-24 roof system are factory-punched to assure proper alignment.

**Above Top:** Butler's factory punching assures straight panel alignment. **Above Bottom:** Without factory punching, these misaligned panels bind on clips, strain seams and compromise weathertightness.



## 9 | Splice Support

*Secures solid structures.*

On wider buildings, roof panels are placed end to end, creating a splice. Most manufacturers allow their splices to occur in midair—without direct structural support. Installers and other roof traffic, even the weight of snow, will push down on midair splices and cause strain on the splice, providing the opportunity for the splice to open. Butler prevents this by designing splice locations to occur directly over supporting steel.

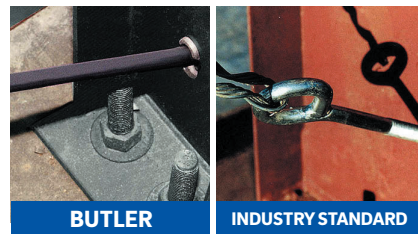


## 10 | Staggered Panel Splices

*Prevent exposed seams.*

Most manufacturers locate panel splices at exactly the same position across the entire roof. This creates a condition where four panel corners must be joined at the same location, making it almost impossible to seal and keep weathertight. Butler staggers the panel splices to avoid this condition, to assure weathertightness and to provide a stronger and superior roof system.

**Above Top:** Butler staggers panel splices to avoid the four-corner condition—another design feature to assure weathertightness and longer roof life. **Above Bottom:** Most manufacturers locate panel splices at exactly the same position across the roof. This four-corner condition is very difficult to seal and keep weathertight.



## 11 | Steel-Rod Bracing

*Provides solid reinforcement.*

No matter how strong the building, the bracing system is its backbone. Over the years, Butler's steel-rod bracing retains its original strength and tightness. Rod bracing does not stretch or sag like wire rope and cable, which over time compromises the structural and roof integrity of your building.

## 12 | Acrylic-Coated Structurals

*Superior finish.*

Butler uses only acrylic-coated galvanized C/Z structural members. This finish is superior to primer paint and provides for a brighter interior finish than red oxide primer finishes.

## MR-24<sup>®</sup> ENGINEERED ACCESSORIES

### 13 | Ridge

*Improved weathertightness.*

Butler's unique ridge design has concealed fasteners to improve weathertightness and the potential for roof leaks. In addition, Butler uses only about 2% of the exposed fasteners used by other manufacturers in a typical 20' length ridge. Butler's minimal use of exposed fasteners not only reduces the potential for leaks but also saves on installation costs. Additionally our exclusive Lock-Rivet™ fasteners with factory-punched holes eliminates the need for drilling. This eliminates the metal shavings which cause rusting as found in other manufacturers' ridge designs.



### 14 | Gable Trim

*Seamed-in with fewer fasteners.*

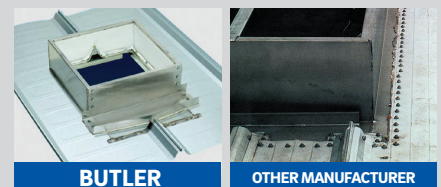
Most manufacturers' gable trims require more parts and fasteners than Butler's. In fact, up to 85% fewer fasteners are required with a Butler seamed-in gable trim resulting in less potential for leaks, roof problems and maintenance. The Butler gable trim is also designed to expand and contract with seasonal temperature changes allowing the roof to move and improve performance and durability.

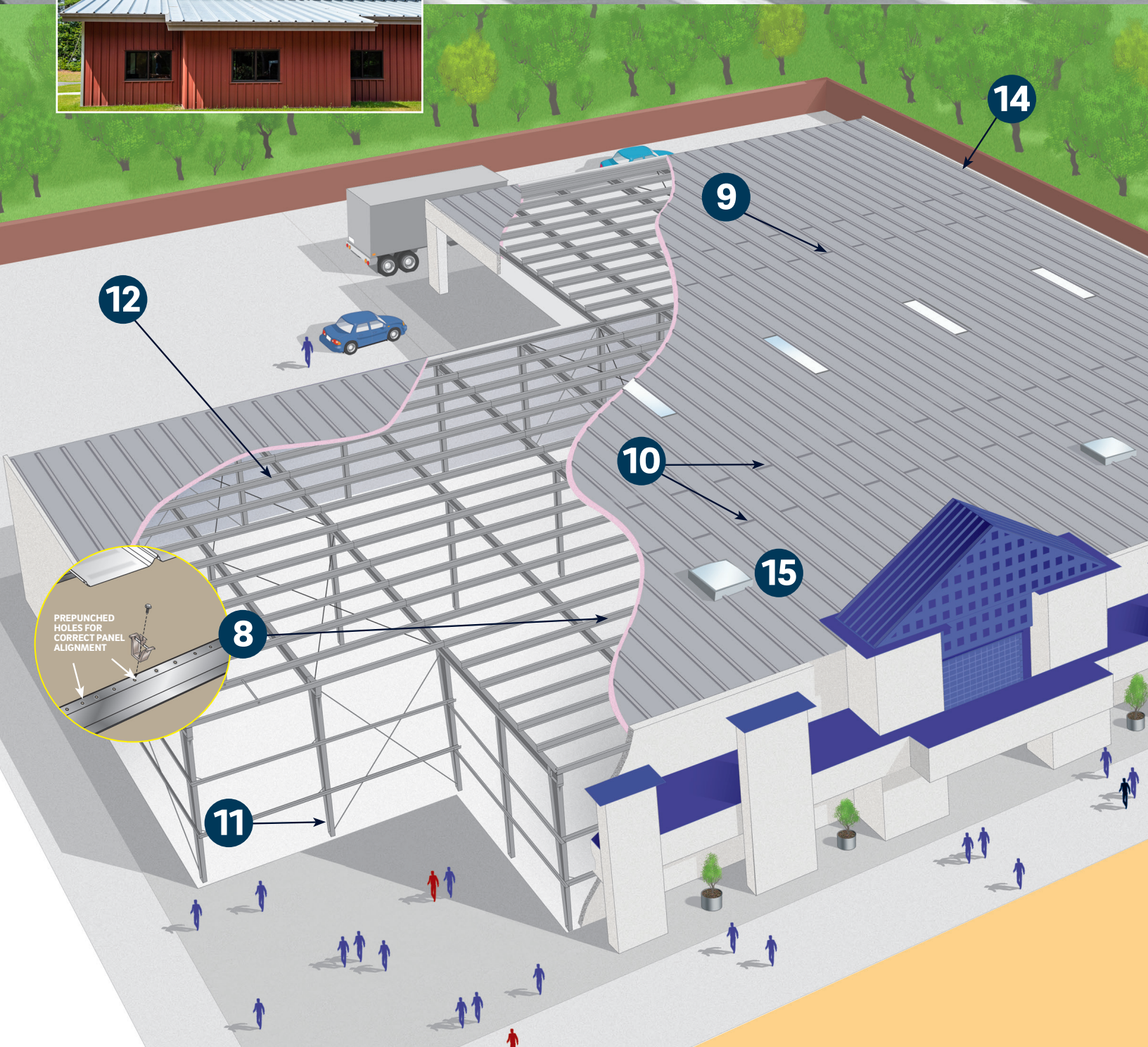


### 15 | Roof Curb Openings

*Precision engineering.*

Studies show that 90% of roof leaks are due to poorly designed or installed roof penetrations. Every Butler roof curb and opening is fully engineered at the factory, so there is no field engineering. Unlike the exposed fastener designs other manufacturers use, Butler's internal flange design conceals fasteners within the curb and eliminates leaks. All Butler curbs are made of aluminum rather than Galvalume<sup>®</sup> eliminating weld maintenance.





**With three billion square feet in place and 50 years of in-place performance, the MR-24<sup>®</sup> roof system is the most time-tested and widely used standing-seam roof system available.**

# Experience the Butler Difference.

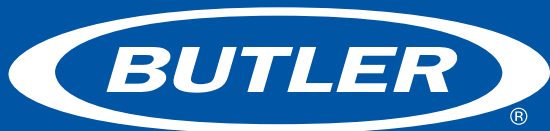
Butler Manufacturing™ offers several competitive advantages that have enabled us to remain the leader in the building systems industry for more than 100 years. We call this The Butler Difference, and you'll find it in details such as—

**Butler Builders**—offering single-source responsibility and complete construction services. Find your local Butler Builder® at [www.butlermfg.com](http://www.butlermfg.com).

**High-performance products**—such as acrylic-coated galvanized C/Z purlins and girts, the unique MR-24® seam that virtually eliminates roof leaks, and structural and wall systems that integrate easily with conventional building materials.

**Butler-Cote™ finish**—only Butler offers this superior full-strength Kynar 500® or Hylar 5000® fluoropolymer finish system as the standard exterior finish on all painted panels and trim to keep your retail facility looking new for years to come.

**Weathertightness warranties**—available 25-year warranties for panel finish protection and weathertightness are a testament to the performance that a Butler® building system offers.



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