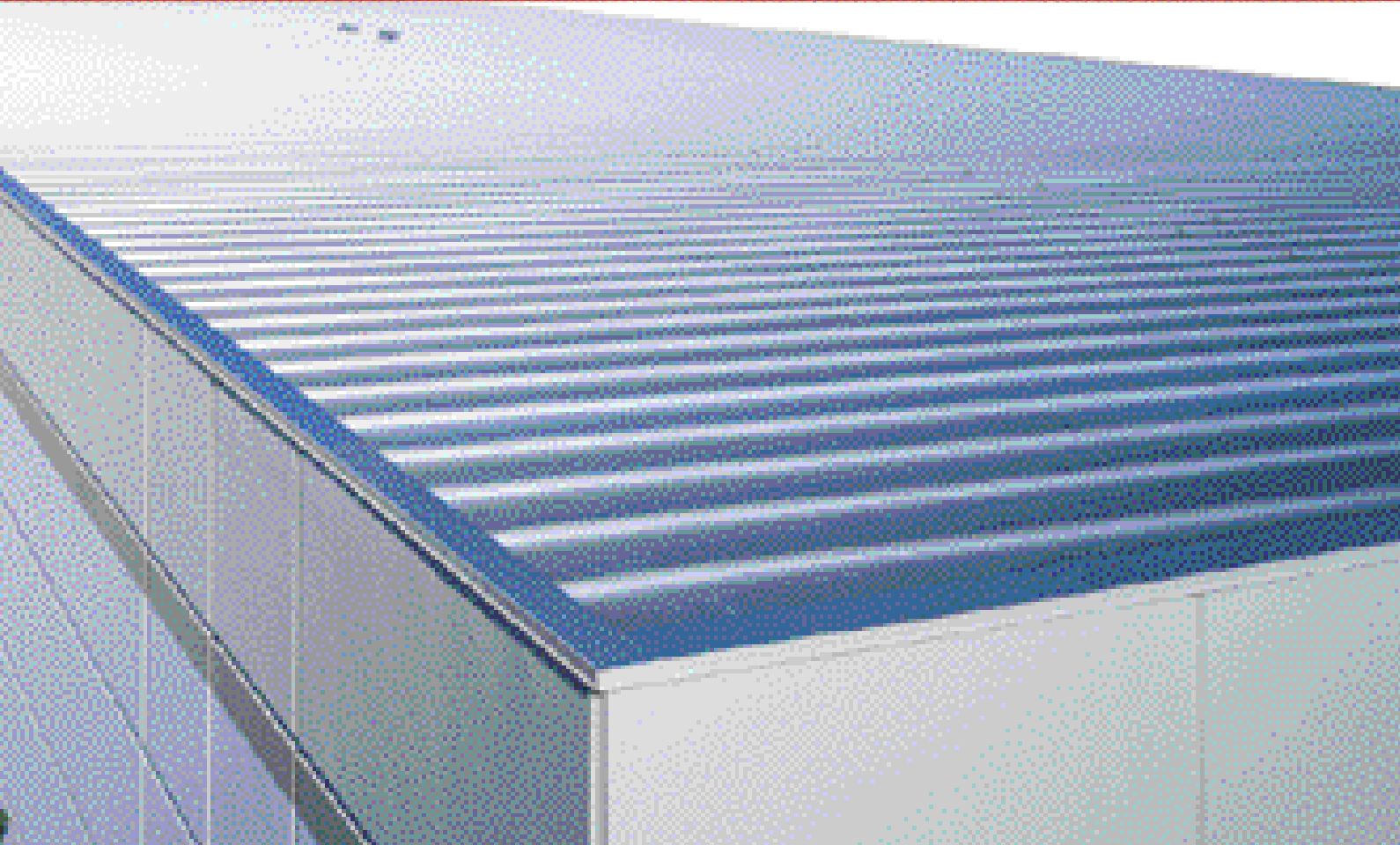


Getting It Right

# THE BUTLER® DIFFERENCE

R E P A I R I N G   Y O U R   R O O F



# The Right Way. Butler.

## MR-24® Metal-Over-Metal

There are really only two ways to repair an old, leaking metal roof. One, you can paint it with a coating. Or two, you can retrofit it with a metal roof over your existing metal roof.

Coating is a short-term, maintenance-intensive solution.

Metal-over-metal is a long-term, maintenance-free solution.

Plus, there are energy-saving advantages resulting from added insulation with a metal-over-metal solution that continues to save you money, year after year.

### LONG-TERM METAL-OVER-METAL SOLUTION

The metal-over-metal re-roof solution by Butler provides an MR-24® standing seam metal roof system over your existing roof. You get a long-term, low-maintenance weathertight system with additional insulation that reduces energy costs.

#### Installation



Install a retrofit MR-24 roof system over an aged metal roof while your business goes uninterrupted.

## Metal-Over-Metal vs. Coatings

### Q Are weather conditions a critical factor when installing the product?

#### MR-24® Metal-Over-Metal Systems

**A: No.** A metal-over-metal system can be installed during various weather conditions. Installation is not restricted by temperature, and there is no vulnerable curing time after installation is completed.

#### Coatings

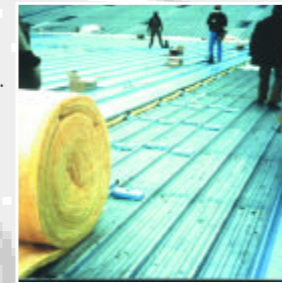
**A: Yes.** Coating should not be applied when temperatures are below 50° F or above 80° F and/or moisture (rain or heavy dew) is likely before curing (24 to 48 hours).

### Q Will my business realize energy savings?

#### MR-24® Metal-Over-Metal Systems

**A: Significant savings.** With new insulation, expect energy savings in both heating and cooling costs.\* MR-24 roof systems can incorporate insulation in all applications.

- With a high-profile metal-over-metal system, 6" of blanket insulation (R-19) or more may be applied.
- An MR-24 roof system accommodates even the most stringent building codes.
- With a low-profile metal-over-metal system, up to 3" of blanket insulation (R-11) may be applied.



\*MR-24 roof panels provide heat reflective characteristics that can reduce cooling costs.

#### Coatings

**A: Limited energy savings.** A light-colored coating will provide heat reflective characteristics that may reduce hot-weather cooling-related costs.

- However, coatings provide little benefit to heating costs during cold weather.
- Over time, exposure to UV will diminish the coating's reflective nature as dirt and contaminants accumulate, reducing cooling-related energy savings.

### Q Will my roof be safe to walk on after the product has been completely installed?

#### MR-24® Metal-Over-Metal Systems

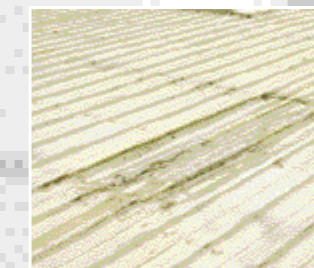
**A: Yes.** The new MR-24 metal roof system is installed over the top of the existing roof panels, attached to the structural purlins underneath. The condition of the existing deck does not affect the strength of the MR-24 panels.

- Any existing translucent panels are covered over with the new MR-24 metal roof system and pose no danger to foot traffic.
- The new durable MR-24 panels allow foot traffic with little risk to roof performance or weathertightness.

#### Coatings

**A: Perhaps.** However, metal corrosion can continue — or even accelerate — underneath a coated roof. So the consequences of this present serious safety issues. An existing light-gauge metal roof that appears viable from the top may contain areas that are weakened by corrosion underneath the coating. Someone walking on the roof may fall through, resulting in serious or fatal injury.

- Corrugated translucent panels, never intended for foot traffic, are often coated over and become undetectable. While this is not a recommended practice, it is a common one that could result in casualties.
- Future roof foot traffic, related to inspections, equipment maintenance and roof repairs can damage the coating, causing cracks and surface failure.



A dangerous foot-traffic hazard exists where spray foam, duct tape and tar were applied over a skylight and its fasteners.

### Q Can repairs be made without causing interruptions to business operations?

#### MR-24® Metal-Over-Metal Systems

**A: Yes.** But, repair to the existing metal roof is not required. Moreover, successful installation does not rely on the condition of the existing roof. Removal of the existing roof or disposal of roofing materials is not required. The integrity of the new roof depends only on the existing structure, not the roof panels below.

- The new standing seam metal roof system is installed over the existing roof by attaching it to the building's existing structural system and not the panels themselves, so installation procedures differ little from any new roof application.

#### Coatings

**A: Yes.** However, surface preparation does require existing roof surface be power washed to remove dirt, debris, loose rust and coating. All thru-fasteners must be retightened or replaced. Failed and weakened panels must be replaced. Corrugated skylight panels should be removed and replaced with steel panels.

- Proper preparation and application steps are critical. A successful application is reliant on the installer's preparation and adherence to strict manufacturer's application instructions.

### Q Are recurring leaks still possible after the product has been installed?

#### MR-24® Metal-Over-Metal Systems

**A: No.** MR-24 roof systems are specifically engineered to accommodate natural thermal movement. The system is designed to "float" on concealed moveable clips. MR-24 panel laps are joined by a compression connection that allows for free expansion and contraction without stress. Re-roofing with the MR-24 metal-over-metal system assures long-term weathertight performance.

#### Coatings

**A: Yes.** Thermal forces from constantly changing temperatures cause a roof to experience continuous expansion and contraction. This movement is most apparent at fasteners and panel lap locations where coating cracks will appear as the roof panels expand and contract. As moisture enters these areas, the moisture is trapped, causing coating delamination and roof deck deterioration.

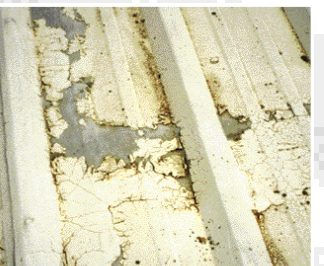
### Q How many years of dependable service can I expect after the product has been installed?

#### MR-24® Metal-Over-Metal Systems

**A: From 30 to 40 years.** With a 25-year weathertightness warranty and more than 30 years of actual in-service life, the Butler roof system has decades of proven low-maintenance weathertightness performance. Independent surveys of 18- to 23-year-old-roof installations have shown that many MR-24 roof systems will last up to 40 years.

#### Coatings

**A: From one to 10 years.** Extensive maintenance is required to maintain weathertightness after initial installation.



After time, sprayed-on coatings will begin to deteriorate and flake off. Additional maintenance will be required.

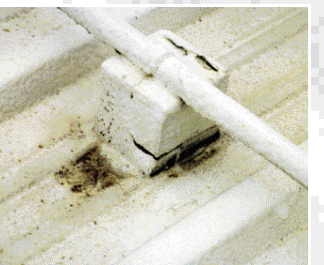
### Q How much recurring roof maintenance should I plan on after the product has been installed?

#### MR-24® Metal-Over-Metal Systems

**A: Yearly roof inspections.** Remove any roof debris, clean gutters and check flashings/sealant around roof penetrations to avoid maintenance costs.\*

#### Coatings

**A: Periodic maintenance and yearly inspections** are required. As problems occur, coating must be cleaned from each affected area and surface prepared and recoated.



The application of spray foam is imprecise, covering everything on the roof. In this instance, the foam coating has cracked around a supporting wood block, which allows moisture to penetrate.

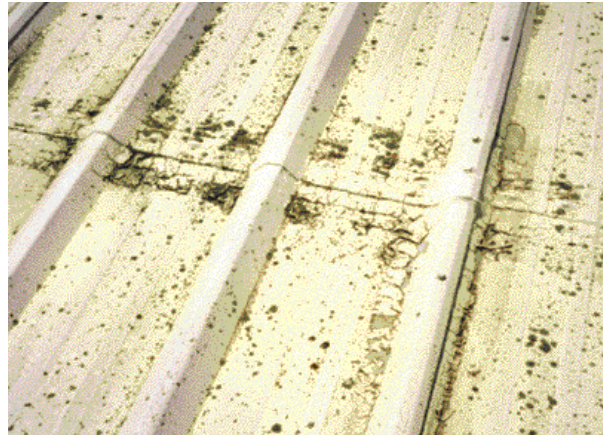
\* Based on two-year maintenance records from a single customer with approximately 29 million square feet of MR-24 roof in use, maintenance costs of \$.003/sq.ft. were experienced over the two-year period.



## The Wrong Way

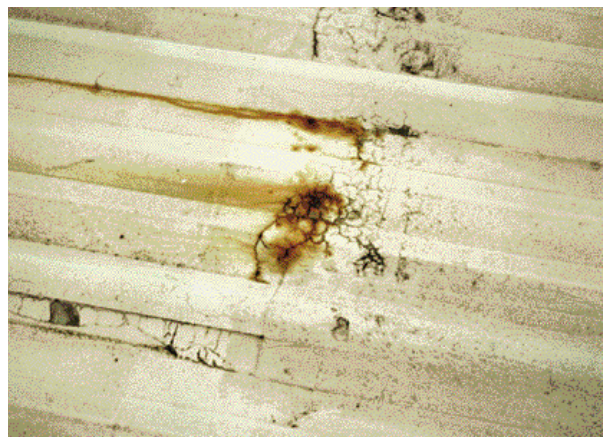
### Temporary Roof Coating Procedure

When a thru-fastened metal roof starts to leak, coating the panel laps is a commonly used quick fix. This “band-aid” approach may provide temporary benefits at best. But, in time, the coating traps moisture and accelerates corrosion.



A sprayed coating over a metal roof does not prevent splice joints from separating. This allows moisture to seep in.

Thru-fastened roofs can leak over time at the fastener locations. As the roof expands and contracts, the roof works back and forth at the fastener locations and creates a slot in the panel. This slot is the key source of leaks. Applying a coating will not eliminate this movement, and the roof remains vulnerable to leaks at this critical location.



Applying a coating does nothing to eliminate leaks at critical locations, like at this fastener location.



Blain's Farm and Fleet has 33 retail locations in Wisconsin, Illinois and Iowa. And, with their newer stores averaging over 130,000 square feet, minimizing roof maintenance is a major concern.

So, they have specified Butler roofing systems for over 30 years. In fact, they now have over 2.6 million square feet of installed MR-24® roof systems in place.

Blain's chose Butler for the amount of research and development put into each product—including the engineered flashing details and sealants. With Butler roof



systems, their maintenance costs are virtually nonexistent. Blain's Farm and Fleet will continue to specify the MR-24 roof system as the preferred roof system for their retail stores.

To discuss your options or to obtain a proposal for a long-term Butler re-roofing solution, call toll-free, 1-800-998-7663. Or call your qualified local Butler Builder.® You'll find them in the Yellow Pages under "Buildings—Metal" or at [www.butlerbuilder.com](http://www.butlerbuilder.com).



**Butler Manufacturing Company**  
1540 Genessee Street, Kansas City, MO 64102  
PO Box 419917, Kansas City, MO 64141  
Butler Buildings (Canada)  
Burlington, Ontario, Canada L7M3X1  
[www.butlermfg.com](http://www.butlermfg.com)

