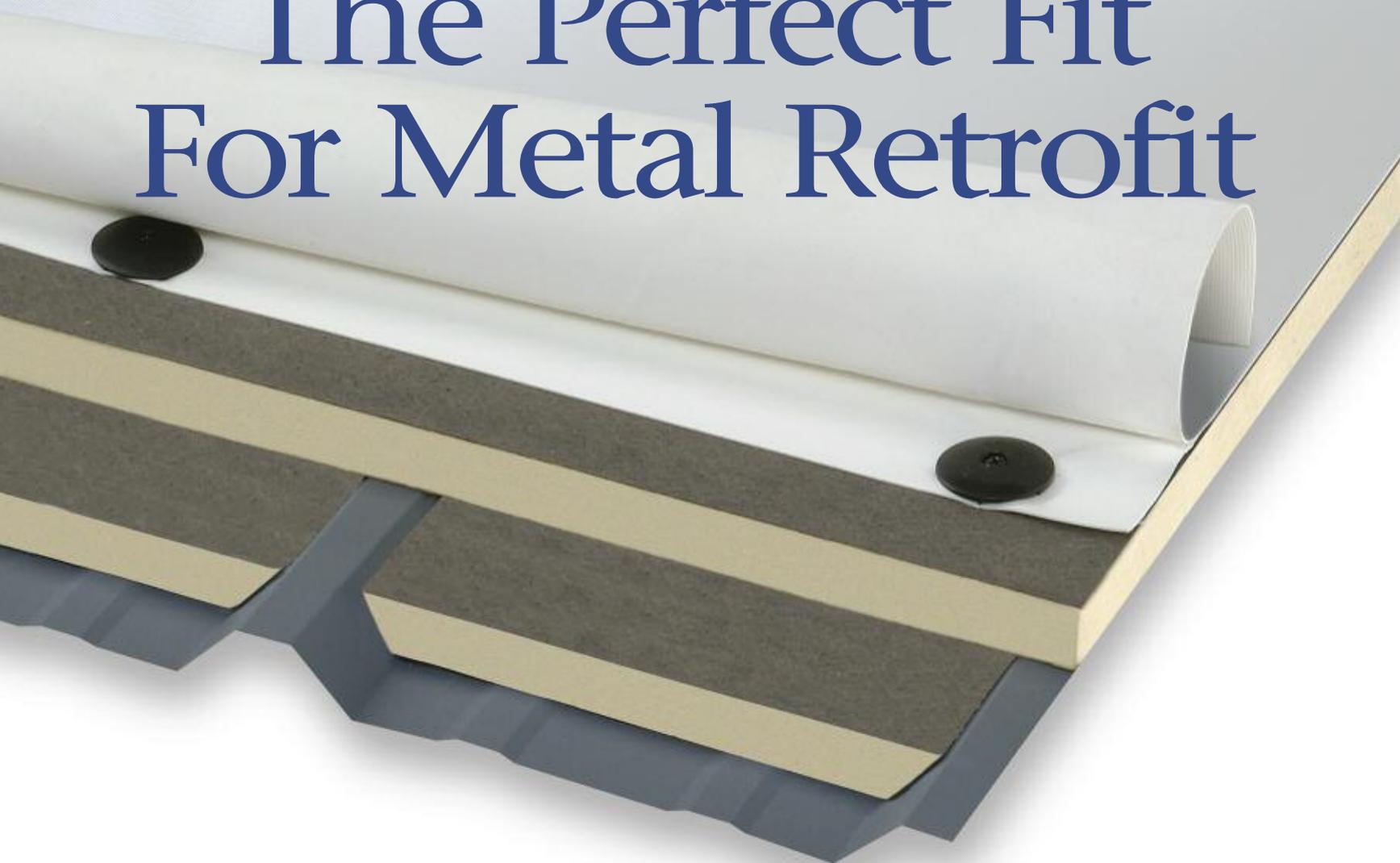


Duro-Shield® Metal Retrofit Roofing System

# The Perfect Fit For Metal Retrofit



Lock out leaks. Lock in your investment.



Has time  
caught up  
with your  
metal roof?

There are good reasons to choose metal roofing, including lower initial installation costs and superior protection against fire.

But time catches up with everything, including metal roofs. Years of exposure to the elements, hot and cold extremes, and rust and corrosion can combine to compromise your metal roof's integrity.

In fact, if your metal roof is more than a few years old, you probably know the frustration of leaky buildings and escalating maintenance costs.

And you're not alone. With over 60 billion square feet of metal roofing in place in the United States and two billion more installed each year, that adds up to a lot of leaks — and a lot of money spent fighting them.

## A closer look at metal roof problems

Unfortunately, metal roofs are susceptible to a number of problems that lead to leaks and larger repair and maintenance budgets. These are some of the most common:

### Loose seams and cracked penetrations

Roofs expand and contract with the weather. Because metal roofs are made of rigid sheets fastened together, this expanding and contracting loosens screws, pulls at seams, and causes cracks to form around stacks and other penetrations.

### Rust and corrosion

Everyone knows what moisture does to steel. Snow, rainfall, and ponding water eventually cause rust and corrosion to form and holes to appear.

### Interior drips

Cold temperatures chill inadequately insulated metal, causing warmer moisture vapor inside the building to collect as water or frost on the underside of steel roofing panels. This condensation effect can cause dripping inside, even when the weather is dry outside. And the problem is compounded when oxidation occurs and rust forms on the inside of the building.

### Ice build-up

Ice build-up in gutters can block water from properly draining off the roof during a thaw, creating a drainage back-up and providing more opportunities for moisture to enter through a roof's seams.



Seam and fastener problems.



Cracks or leaks around penetrations.



Rust and corrosion.





You could  
choose  
to fix  
your roof.

There are several solutions to the problems caused by aging metal roofs, each with advantages and disadvantages.

## Sealing and coating

The first and least expensive option is to re-seal exposed seams and apply a waterproof coating. But this method only protects against rain — and only temporarily. That's because the roof continues to expand and contract, eventually rupturing the new seals and the coating.

## Spray-on foam and sealant

The second option is to insulate the metal roof with a spray-on urethane foam and then apply a sealant. This method helps protect against rain as well as interior drips. But the irregular surfaces of foam coatings are notorious for collecting water. That's one reason that most warranties for spray-on foam do not cover damages due to ponding water.

## Roof replacement

The third option is to completely replace the roof with new insulation and new steel. This option addresses all the problems — until they begin again, since a new metal roof will have the same characteristics as the old roof. This option is also costly, involves the use of heavy equipment, and is disruptive to a building's normal operations, often exposing the building contents to the elements while work is performed.

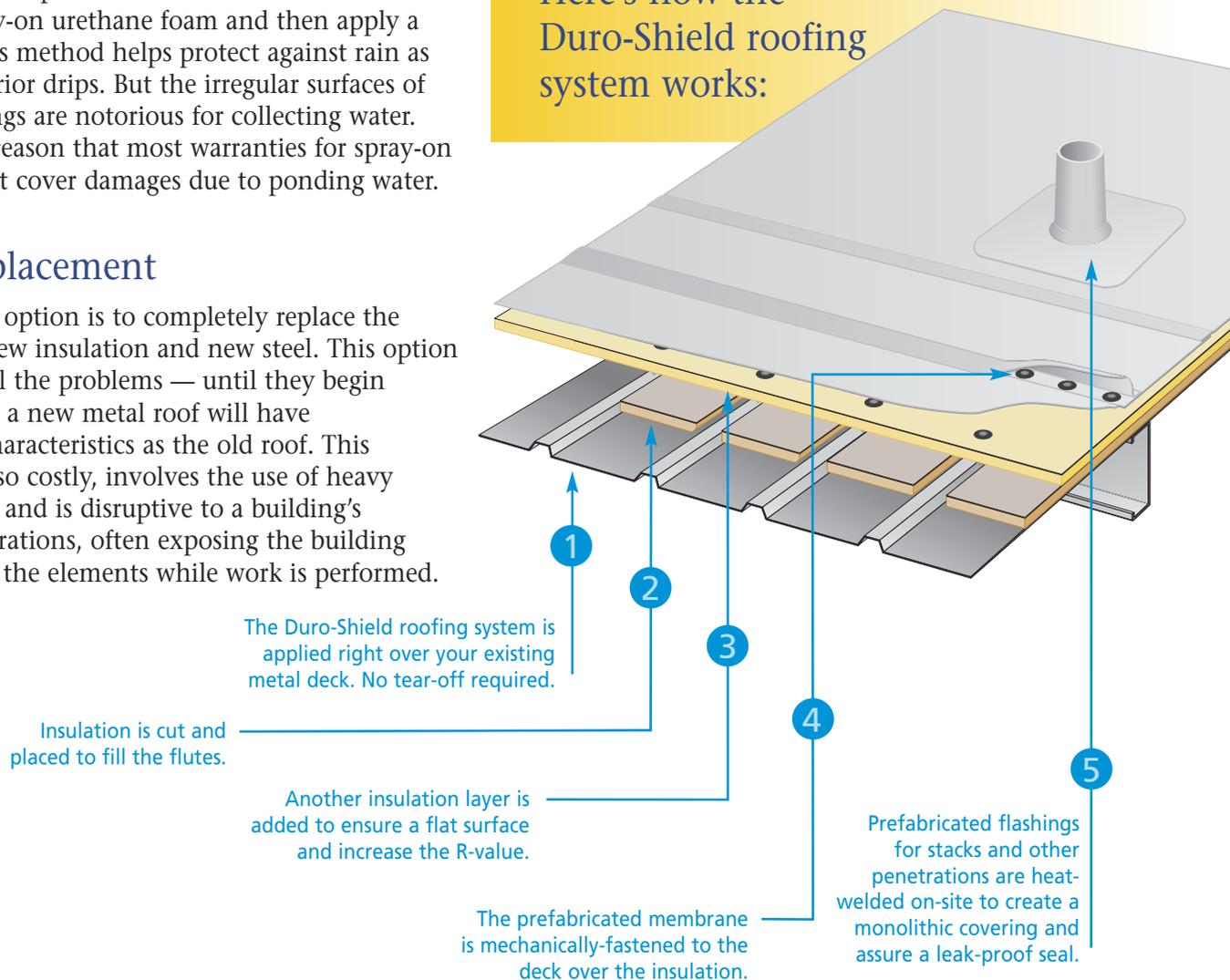
## Are there any other options?

Wouldn't it be great if, instead of fixing or replacing your metal roof, you could install a new, long-lasting roofing system right over your current roof without an expensive tear-off?

Good news. You can with the Duro-Shield® metal retrofit roofing system from Duro-Last®.

The Duro-Shield roofing system is the cost-effective, long-term way to protect your building against rain, temperature changes, interior drips, ice build-up as well as rust and corrosion — guaranteed.

## Here's how the Duro-Shield roofing system works:





The  
cost-effective  
solution to  
all your  
metal roof  
problems.

## The Duro-Shield roofing system is customized for your roof

The long-term solution to your metal roof problems begins with an evaluation by an authorized Duro-Last contractor, who analyzes your roof's condition and performance requirements and draws up a plan to meet your particular needs.

Next, the Duro-Shield roofing system membrane for your new roof, including all accessories and edge details, is custom prefabricated at one of our plants in Iowa, Michigan, Mississippi or Oregon to perfectly fit your building's exact dimensions. Our factory-welded system ensures that up to 85% of the seaming work is done up-front in an ideal, controlled environment to minimize on-site labor and installation errors.

The contractor then selects and installs the appropriate insulation materials to fill the roof's metal flutes and adds another layer of insulation to ensure the steel is properly insulated from weather extremes. The prefabricated Duro-Shield roofing system membrane is unrolled and mechanically-fastened over the insulation, and individual sections and flashing for stacks and other penetrations are heat-welded together on-site to produce a monolithic covering. The entire process is safe and simple, requiring no heavy equipment, no unpleasant odors or dangerous chemicals, and no excessive labor. And because a tear-off is not required, the Duro-Shield roofing system can be installed while you remain open for business, even during inclement weather.

Because the Duro-Shield roofing system is a flexible membrane, it expands and contracts with the weather, virtually eliminating the risk of rooftop leaks.

Duro-Last is so confident in the durability of our roofing systems that we protect commercial and industrial installations with the best warranties in the industry. Our standard, comprehensive 15-year No Dollar Limit (NDL) warranty is transferable, has no exclusions for ponding water, and provides coverage against consequential damages that result from defects in the Duro-Last material. Duro-Last also has 20-year warranties available.

## Save money while you protect your building

A Duro-Shield metal retrofit roofing system will do more than protect your building — it will also protect your budget from high energy costs. The Duro-Last white membrane is highly-reflective throughout its life span on the roof, saving significant energy and money for building owners all over North America. Savings are often available through local, state or federal government incentives for building owners who install energy-efficient roofing.

If time has caught up with your metal roof, it's time you considered the Duro-Shield roofing system. Call us today to find out how a Duro-Shield metal retrofit roofing system can help you lock out leaks and lock in your investment.

**For more information, call us at 800-248-0280 or visit our web site: [www.duro-last.com](http://www.duro-last.com).**

**No more seam and fastener problems.**

**No more cracks and leaks around penetrations.**

**No more rust and corrosion.**



# Duro-Last® Roofing, Inc. Manufacturing Facilities

## CORPORATE HEADQUARTERS

525 Morley Drive  
Saginaw, MI 48601  
800-248-0280  
Fax: 800-432-9331

111 N. Valley Drive  
Grants Pass, OR 97526  
800-356-6646  
Fax: 866-258-2858

6200 I-55 South  
Jackson, MS 39272  
800-434-3876  
Fax: 866-602-4387

1409 E. SADC Avenue  
Sigourney, IA 52591  
888-500-3574  
Fax: 888-501-3574



[www.duro-last.com](http://www.duro-last.com)

