



Your Metal Roofing Resource

Introduction

RESIDENTIAL METAL ROOFING BUYER'S GUIDE



Your roof is one of the most critical components of your

home, protecting both the exterior and interior. As such, it is

vital that the roof is made from high quality product, installed by a quality professional, and comes from a reliable source. North American manufactured metal roofing meets the highest standards for quality, safety and dependability. These products are subjected to rigorous industry standards and performance testing helping ensure your investment in a new metal roof will comply with building code requirements and perform reliably for years to come.

Don't be fooled by inexpensive, sub-standard roofing materials that have the potential to put not only your roof investment, but your home, at risk. While it's tempting to try and save a few dollars short-term, the higher cost of greater repairs, the potential for roofing failure and the lack of warranty protection that come with inferior products are no bargain, and can quickly wipe out any initial savings.

Reputable manufacturers stand behind quality products with solid warranties and stringent business practices, offering peace of mind that comes from knowing your home will be well-protected, now and into the future.

Here's what to know before you get started.

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IS IT TIME FOR A NEW ROOF?

Re-roofing your home can be a big decision, both financially and from a timing perspective. If you wait too long, you'll cause more harm than good.

A failing roof can mean water leaks, mold and additional damage to the interior of your home. Financially, putting on a new roof typically means a large outlay of funds or a newly acquired loan...neither of which is very appealing to homeowners. So, it comes as no surprise that, for most people, re-roofing your home can be a stressful yet unavoidable aspect of home ownership.

So how do you know when it's time to put on a new roof? Here are a few signs that it may be time to consider re-roofing your home...

- Missing or loose roofing material...this includes either a large quantity of missing material or a re-occurring issue that has to be addressed frequently.
- Damaged roofing material which may include curling, cracking, blistering, staining or breakage...anything that visually indicates the material is reaching the end of its life.
- A sagging roof...this could indicate your roof is weak and deteriorating, it was improperly installed or that it might be supporting too much weight.
- With asphalt roofing, when there are large amounts of granules in your gutters, downspouts or anywhere there is water run-off from the roof. Shingles typically lose more and more granules as they age.
- Exposed or loose nail heads which could mean increased susceptibility to water penetration and potential leaks in the roof.

- Any water damage inside your home or attic may indicate that your roof has deteriorated. This increases the chance of mold and mildew growth which can result from inadequate roof ventilation.
- Missing or damaged flashings, curbs or roof jacks increase the opportunity for water to leak into your home.
- If your heating or cooling bills have gotten noticeably higher. This may be a result of insufficient attic ventilation or a damaged/leaking roof that is impacting airflow.
- Depending on your roof composition, the age of your roof alone may be a good indicator it's time to be replaced.
 Further, if the roof was installed over the top of the previous roof (example: shingles on top of shingles), then you may need to replace your roof even sooner.



Asphalt roofing will become dry, brittle and misshapen when aged.



Damaged or aged **roof jacks** may allow water leaks in your roof.

If your roof is showing any of these signs, it may be time to start planning for a new roof. This Buyer's Guide will walk you through various aspects of the re-roofing process... from things to consider when selecting a new roof to material comparisons and options to questions you should ask your roofing professional. It is our goal to assist you in your re-roofing journey and to help make your experience as seamless as possible.



Here are some important regional considerations that should impact your roof selection process.

HURRICANES & HIGH WINDS

Consider the following if you live in an area that experiences hurricanes, tornadoes or high winds.

- Wind speeds which roofing options (systems) are tested and proven to withstand high winds?
- **Performance ratings** what roofing products are rated to withstand the winds that could befall my area? (NOTE: there is a formal, recognized rating system in place for high winds)
- Building codes what do local building codes require as it relates to high winds?
- Insurance which roofing materials are rated to meet/exceed insurance company policy requirements?

WILDFIRES

Consider the following if you live in an area where wildfires are a possibility.

- Fire resistance what roofing materials are tested and proven to be fire resistant?
- Performance ratings which roofing materials are rated to withstand high heat such as from direct flame or embers? (NOTE: there is a formal, recognized rating system in place for fire resistance)
- **Building codes** what building code requirements related to flames or embers exist in my area and what roofing materials can meet those codes?
- Insurance which roofing materials are rated to meet/exceed insurance company policy requirements?



In **hurricane** prone areas, your roof system should be rated for its ability to withstand high winds and uplift.



Your roof can be the first line of defense when living in **fire** prone regions.

WHERE YOU LIVE MATTERS

(Continued)

SNOW & ICE

Consider the following if you live in an area that frequently experiences snow and ice.

- Snow loads what roofing options can support heavy snow loads (weight)?
- Snow shedding what roofing materials might assist with shedding snow, making the process easier and/or safer?
- Snow guards what snow guard options are available (and effective) for the roofing materials I'm considering?
- Ice damming what roofing options will minimize or alleviate ice damming?



Heavy **snow and ice** damming can weigh down your roof potentially causing water leaks or worse.

HAIL

Consider the following if you live in an area that experiences large and/or frequent hail.

- Dent resistant what roofing materials are tested and proven to be dent resistant?
- Performance ratings which roofing materials are rated to withstand hail, both larger in size and at higher rates of speed? (NOTE: there is a formal, recognized rating system in place for hail)
- Building codes what building code requirements related to hail exist in my area and what roofing materials can meet those codes?
- Insurance which roofing materials are rated to meet/exceed insurance company policy requirements?



Large and fast-moving **hail** may compromise your roof structure's integrity.

OTHER REGIONAL CONSIDERATIONS

- Hot climates what roofing products can repel heat and minimize cooling loads (the need for air conditioning)?
- Cold climates what roofing products can hold heat and minimize heating loads?
- Solar which roofing products work best with solar panels and attachments? What roofing products will
 last as long or longer than the solar panels themselves (so panel warranties are not voided by r
 emoval/replacement)?
- **Difficult to Reach** what roofing products have the longest lifespan in order to avoid replacement in difficult locations (safety)?



Performance Ratings

How your roof system performs in severe weather can be vital in protecting your home. Performance ratings for roofing products exist for that very reason... to help ensure your roof can withstand whatever Mother Nature throws its way. To learn more about the various performance ratings related to residential roofing, please contact the MRA at support@metalroofing.com.

Standards & Specifications

In addition, applicable building codes, standards and specifications may exist in your area.

Failure to follow these accepted procedures and methods can result in lawsuits, inspection failures, and added project costs. Most codes, standards, and specifications are designed to ensure quality and safety in the construction, and specific requirements in energy efficiency.

Knowing what is required and/or truly needed for your area PRIOR to selecting a roof system is a critical step toward ensuring the longevity and performance of your roof.

COMPARING ROOF MATERIALS

When selecting a roofing material there are many factors to take into consideration beyond installation cost. Here's a side-by-side comparison of metal roofs and other common roofing materials. While the initial investment of a metal roof may be higher, rest assured **the overall cost of a metal roof over its lifetime will make metal roofing the most economical choice and add the greatest value to your home.**

ROOF TYPE	Maintenance	Visual Style	Environment
Metal Vertical Seam	 Inspection based on manufacturer recommendation Repairs and replacements are rare Fade and chalk resistant with both PVDF or SMP paint systems 	Standing seam panels offer a distinctive, timeless look Available in a wide range of colors and styles	 Energy efficient Made of recycled material 100% recyclable at end of life Low weight — ships easily Eco-friendly
Metal Stamped Panel	Inspection based on manufacturer recommendation Repairs and replacements are rare Fade and chalk resistant with both PVDF or SMP paint systems	Shingles can match look of any traditional roofing material Available in a wide range of colors and styles	Energy efficient Made of recycled material 100% recyclable at end of life Low weight — ships easily Can often be installed over existing roof Eco-friendly
Asphalt	 Inspection every year Shingle replacement common Re-caulking and sealing as roof ages 	Traditional asphalt shingle look Variations in color shading common Available in a limited selection of colors Quickly ages	 Made from crude oil and other chemicals Ends up in landfills after short lifespan where it can take up to 300 years to decompose Not Eco-friendly
Clay Tile	 Inspection every year Occasional repair of cracked and sliding tiles Limited wind resistance 	Wide range of styles available Limited color selection available	 Considered eco-friendly Energy efficient Heavy weight – may need to have structural inspection prior to adding tile roof
Shake	 Inspection every year Maintenance required every 2-4 years Susceptible to mold growth, rot and leaking 	Rustic and tapered for a natural appearance	Considered an eco-friendly roofing material if sourced from a sustainable Forest Stewardship Council approved manufacturer
Slate	 Inspection every year Occasional repair of cracked, chipped and sliding slates Susceptible to color variations if repaired 	Limited style option Limited color selection available	Considered eco-friendly Heavy weight — increased shipping expense Heavy weight — may need to have structural inspection prior to adding slate roof

COMPARING ROOF MATERIALS

(Continued)



ROOF TYPE	True Cost *	Warranty	Expected Lifespan
Metal Vertical Seam	\$500-\$2,000 per squareUp to 30% energy savingsImproves home resale value	30-50+ years Plus workmanship warranty from installer	Average lifespan 50+ years
Metal Stamped Panel	\$900-\$2,000 per squareUp to 30% energy savingsImproves home resale value	30-50+ years Transferable warranty Plus workmanship warranty from installer	Average lifespan 50+ years
Asphalt	• \$350-\$900 per square • Frequent replacement cost every 10-20 years	Warranty length varies by shingle manufacturer and material Warranties are often heavily pro-rated and have many limitations	• Average lifespan 15-20 years
Clay Tile	• \$700-\$2,000 per square • Minor upkeep needed	30-50+ year warranty Warranties are often pro-rated and have limited transferability	• Average lifespan 50+ years
Shake	\$800-\$1,500 per square Frequent repair and upkeep cost	• 5-year warranty is standard	• Average lifespan 10-12 years
Slate	• \$1,200-\$3,000 per square	50+ year warranty Warranties are often pro-rated and have limited transferability	• Average lifespan 75+ years

^{*}Pricing may vary by region, product, roof geometry, roof complexity, and/or current condition of the roof.

METAL ROOFING STYLES

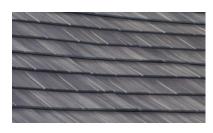
No matter what kind of roofing style, color or finish you are after, there's a metal roof to match.

Looking for the charm of traditional cedar shake, or the simplicity of asphalt shingle? Or perhaps you are after the bold and distinctive look of clay tile or natural slate. Modern day metal roofs offer all of the style and beauty of these traditional roofing materials only stronger and more durable. There's certain to be a metal roof style to match your home and neighborhood.



METAL SHINGLE

Pre-formed metal shingles are available for those who appreciate a classic asphalt appearance coupled with outstanding performance and 3-4 times the lifespan of standard asphalt shingles.



METAL SHAKE

Metal shake is premium alternative to traditional wooden shake. You'll love the authentic look of wood, while gaining a variety of color choices with longer lasting, more durable metal.



METAL TILE

Standard tile roofs can be heavy, yet fragile and costly to maintain. Metal tile, however, has the graceful curves of classic tile, but the lightness, strength and longevity of steel.



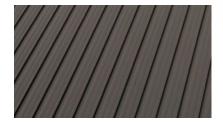
METAL SLATE

Metal pre-formed to mimic slate offers homeowners the distinctive look of smooth, uniform slate tiles without the cost, weight and fragility of true slate.

METAL ROOFING STYLES

Continued





VERTICAL PANEL

Featuring clean lines and available in multiple profiles, vertical panels offer a modern twist to the traditional look of metal roofing. Sleek, practical and economical, pre-painted vertical panels are available in a wide range of color options.



STONE COATED

Stone-coated steel roofing comes in a wide variety of colors, textures, and designs to complement almost any style of home.

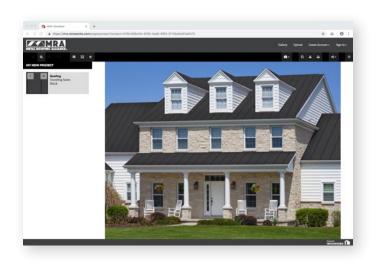


OTHER

Because of metal's ability to be transformed into any shape, homeowners can find a variety of custom-designed options utilizing metal roofing. Visit MRA's website and see what custom-fabricated options our manufacturers can create for you.

MRA METAL ROOFING VISUALIZER

To help you visualize color options and various metal roof styles on your home, go to MRA's Metal Roofing Visualizer mra.renoworks.com where you can upload a photo of your own home or use already provided stock images similar to your home to visually see the aesthetic impact, differing colors and styles will have on your home.



METAL ROOFING MATERIALS

Your roof will only perform to the level of the products from which it is made. Using sub-par products that are not designed or manufactured to defined quality standards could mean a shorter life-span for your roof as well as unforeseen complications along the way.



The MRA requires all member companies meet

defined material standards. These standards are based

on verifiable testing protocol, well documented building codes and third-party research. The culmination of standards over years of testing, performance data and research are documented in the Metal Construction Association's Roofing Specifications which all MRA members agree to adhere to.

METAL DETAILS

Metal Substrate	Quality Specification	Coating Details	Gauge*
Aluminum	ASTM B209	Meet or exceed Alloy 3003	0.018" or thicker
Aluminum-Zinc Alloy Coated Steel**	ASTM A792 & ASTM A924	Meet or exceed AZ50	0.0142" or thicker
Copper	ASTM B370	Meet or exceed GF90	0.021" or thicker
Hot-Dipped Galvanized Steel	ASTM A653 & ASTM A924	Meet or exceed G-90	0.0142" or thicker
Zinc	ASTM A875	Meet or exceed GF60	0.024" or thicker

^{*}Gauge reflects total metal thickness and depends on roofing style.

^{**}Aluminum-Zinc Alloy Coated Steel is known in the market by several brand names including, but not limited to, Galvalume.

METAL ROOFING MATERIALS

(Continued)

SYSTEM DETAILS

Roof Substructure

The roof substructure is an integral part of the roof system. It lies beneath the metal roof panels and serves two primary functions. First, it acts as a base to which the metal roof material is attached. Secondly, the roof substructure serves as a structural member, transferring the load to the support structure. Live loads include wind, snow, rain, and foot traffic. Dead loads include the weight of the roof materials including the roof deck itself. Most decks must also act as diaphragms, transferring wind, and other lateral forces, such as seismic movement, to the building's structural frame.

Underlayment

Underlayment is required before metal roof panels are installed. Some panels may require both an underlayment and what is called a slip sheet. Underlayment normally comes in rolls and is available in a variety of natural and synthetic materials.

Fasteners

The metal composition and style will dictate the type of fasteners used. Each metal roofing manufacturer has specifications regarding fasteners.

Ventilation

Proper ventilation is a critical factor affecting both a roof's efficiency and its longevity.

Curbing & Roof Jacks

Roof curbs are used to support roof penetrations such as skylights. Roof jacks are used to flash around pipes and other similar roof penetrations. Both curbs and roof jacks reduce the possibility of water leaks and provide additional protection against roof leaks.





Underlayment is a critical step in the roofing process.



Selection and use of the correct **fasteners** can have a big impact on the roof's performance and longevity.



Ventilation helps balance air flow in your home, reducing the risk of mold and condensation.

METAL ROOFING COLORS & COATINGS

Choosing a color for your home's roof can have a huge impact on your home's overall aesthetic. With metal roofing, the color choices are virtually limitless meaning you can select from a wide variety of options or work with your installer on a custom-designed look. Here are some dynamics to consider when selecting your roof color.



WHAT TO CONSIDER



Contrast

Selecting a roof color that contrasts with the color of your home's exterior walls will help your home to stand out and command attention. A great example here would be a bright red metal roof on a white exterior home.



Light Colored Roof

If you are trying to add visual height to your home, a lighter color roof may make your house appear taller. For example, homes with a low-slope roof or a shallow pitch would appear taller with a lighter colored metal roof.



Dark Colored Roof

Alternatively, a darker metal roof may give the appearance of a more modest height home.

Other considerations may include your environmental surroundings and the need to blend into those surroundings. A great example is with homes in mountainous regions where dark greens or browns help the home blend into the wooded terrain. Architectural styles may also impact the type of roof and color selection. For some helpful tips from the MRA regarding architectural considerations when selecting a roof visit https://bit.ly/31HtSGH.

METAL ROOFING COLORS & COATINGS

(Continued)

METAL ROOF COATINGS

Stone Coated / Granular Silicone-Modified Polyester (SMP) Ployvinylidene Fluoride (PVDF) · Siliconized polyester is composed of PVDF paints use a resin of 70% · Stone or granular coated panels, which silicone additives in a base resin of fluoropolymer/30% Acrylic, and are have been formed and shaped to style, polyester. The addition of silicone considered the most durable paint in the are coated with an acrylic polymer supplements the paint's performance industry. The formulation provides the adhesive then the granule coating is by improving gloss retention and weather ultimate protection for metal roofs. applied bonding the stone chips to the resistance. Some manufacturers also specially primed steel panel. A clear coat Should be applied to metal at 0.2-0.3 mil add ceramic pigments to reduce sealer is applied over the top for extra color fading. thick prime coat and 0.7-1.2 mil thick protection during transit and installation. topcoat, depending on the paint color. • Should be applied to metal at 0.2-0.3 mil · Stone coated steel panels are tested · PVDF is considered a higher-end paint thick prime coat and 0.7-1.2 mil to insure no more than 1% stone loss system that offers industry-leading thick topcoat. per ASTM D4977. performance and a longer-lasting, · SMP is considered a good paint system more durable finish. that offers lasting performance at a more economical price.

SPECIAL PRODUCTS FOR CORROSIVE AND MARINE ENVIRONMENT

If you live in or near a corrosive or marine environment, metal roofing is the perfect choice for your home. For coastal applications, non-ferrous metals such as aluminum and copper may provide a better solution.

For projects near or within marine environments, the MRA recommends consulting the product manufacturer for details regarding warranty.

COOL METAL ROOF COATINGS

Metal roof coatings labeled as "cool" are coating which utilize special pigments in the paint which reflect infrared radiation and UV rays, allowing the color to appear the same while keeping the roof cooler. These cool coatings can help in alleviating heat build-up and reduce air conditioning requirements.



METAL ROOFING PERFORMANCE

Metal roofing's ability to perform in even the most difficult locations and circumstances makes it the best roofing choice in truly every region. How? Here is quick, simple guide to metal roofing's performance in several important categories...



ENERGY EFFICIENCY

Metal roofing is available with "cool" coatings that can repel heat and minimize heating and cooling loads which equates to cost savings for the homeowner.

SOLAR

Because of the long lifespan of quality metal roofing products, metal roofs are the perfect platform for solar panels. In fact, most metal roofs will outlast the solar panels themselves which means the solar panel warranties will not be voided by replacement of the roof underneath. And, as an added benefit, solar panel mounts for metal roofing typically do not require any penetration of the roof itself which means less opportunity for water penetration.

NOISE

Despite the perception, metal roofing is not any louder with rain or adverse weather as compared to any other roofing material.

LIGHTNING

Again, despite the misperception, metal roofing does not attract lightning. In fact, if lightning strikes your metal roof, the electricity will be spread out across a larger area, which diminishes the immediate impact.

ENVIRONMENTALLY FRIENDLY

Metal is one of the most environmentally friendly roofing products on the market. Metal roofing is made of recycled material and is 100% recyclable at the end of its life. That means less in landfills and more reuse than with most other roofing products.



Thanks to their longevity, strength and exceptional durability, there's no doubt that metal roofs are an excellent choice when it comes to residential rooftop **solar** systems.



Research has shown that metal roofing does not in any way increase the risk of **lightning** striking the roof surface.

METAL ROOFING PERFORMANCE

(Continued)

SNOW & ICE

Most metal roofing systems are designed to carry heavy weight loads, such as snow and ice. Further, several metal roofing styles encourage snow shed and minimize ice damming due to their smooth surface. Snow guards are readily available and easily fitted to every style of metal roof on the market.

HURRICANES & HIGH WINDS

Many metal roofing systems have been tested and proven to perform in winds in excess of 140 mph (equal to an F2 tornado) and provide protection against impact damage from debris.

WILDFIRES

Metal roofing, when combined with the correct roofing system components, meets the Class A fire rating. The Class A rating requires roofing systems to meet or exceed testing criteria as outlined by UL 790 (ASTM E 108) Standard Test Methods for Fire Tests of Roof Coverings.

HAIL

Most metal roofing manufacturers offer UL 2218 Class 4 compliant roofing products. This rating qualifies for the Severe Hail (SH) requirements as defined by most major insurance companies.

In summary, metal roofing out-performs most other roofing products on the market in every category. Long-lasting, durable, sustainable, low maintenance, and eco-friendly... what more could you ask for?





What are the main objectives you hope your new roof will satisfy?

- Cost savings
- · Environmental impact
- Protection from noises and the elements

What type of weather does mother nature bring to your area?

- · High-winds and hurricanes
- Tornadoes
- ·Hail
- ·Snow and ice
- Wildfires

Regardless of where you live and what you value in a roof, trust that a quality metal roof system will protect your home and provide you with peace-of-mind for many years to come.

DO YOUR HOMEWORK

Now that you are ready to proceed with the re-roofing process, do your homework BEFORE reaching out to a roofing installer. It is important to note that, while the type of roof you install is critical to your decision process, just as critical is the selection of your roofing installer. For homeowners seeking a quality metal roofing installer, MRA offers these tips:



Don't assume all roofers are equally skilled

Some contractors push homeowners towards a certain roofing material, not because it's the best or most appropriate for their home, but because it may simply be the option the installer is most familiar with. Make sure your installer is properly trained, experienced and skilled in installing metal roofing. Ideally, look for a roofer that has been in business for at least five years; roofers who don't do quality work usually don't last that long.

Get referrals

Reputable installers are typically involved in the industry and are committed to keeping abreast of the latest trends and techniques. Check to see if the prospective installer is a member of MRA and other reputable trade alliances. Be sure to ask for and contact recent references. When contacting references, ask if they were satisfied with the work, if the process went smoothly, if the installers were careful and courteous and they did what they promised, including sticking to the estimate and change orders. Also, ask the installer to provide you with a few recent job locations so you can drive by and check out the work. While pictures may be helpful, there's nothing like seeing how a roof looks first-hand.

Know what you want before you reach out

With metal roofing alone, there are hundreds of different options, material types, finishes and installation techniques. Request the highest-rated, longest lasting material within your budget and always do your own research for whatever product recommendation your installer suggests, verifying it's what you want for your home.

DO YOUR HOMEWORK

(Continued)

Protect yourself

Make sure that installers are licensed, insured and carry workers' compensation coverage. Don't be afraid to ask for proof-of-insurance certificates and the insurance agent's name. A reputable installer won't hesitate to provide you with that information. Don't pay the full amount of a job upfront; ideally, pay one-third upfront for materials, and the remainder when roofing and clean up are completed to your satisfaction. It goes without saying that evaluating warranties is essential: make sure it covers not only materials and finishes, but leaks, flashing failures and other labor-related defects.

Be thorough

Putting on a new roof is only part of the equation. Replacing flashing, curbs and roof jacks is less complicated when re-roofing, so consider having it done at the same time if needed. Be sure to have your contractor or HVAC provider verify proper attic ventilation. Poor ventilation can cause significant damage, high utility bills and worse case, can lead to serious safety issues.

Remember... metal roofs are one of the best and most reliable ways to protect your home for the long run. Invest some time and effort upfront before your re-roofing project begins, and it will pay off with many years of loving your home's roof.





- Select the type of roofing you desire before reaching out to a local installer, including the type of roof material and color.
- Make sure the installer you choose is a qualified, trained installer of the roof choice you select.
- Referrals are important and should be easy for good installers to provide... just ask.
- Require proof of the installer's coverages (licenses, insurance, etc.) upfront. Don't be afraid to verify as needed.
- Do not pay 100% of the roof estimate up-front. Work with the installer on determining payment amounts based on targeted points in the project. A quality, trustworthy installer will understand that full payment is dependent on a job well-done.
- Make sure you inspect the workmanship and finished product before making final payment. Don't be afraid to question the installer about specific aspects of the final results for clarity and confirmation.
- Make sure you record the important details about your roof—the manufacturer of the product, installer information, warranty details—for future reference. Also get signed, final versions of all pertinent warranties for the project.

UNDERSTANDING THE ROOFING PROCESS



Understanding the roofing process is a vital part of your roof replacement project. The ability to make an educated decision when hiring a roofing professional will save you time, money and frustration throughout the process.

A moderately-sized, professionally-installed roof will follow a process similar to these steps.

1 INSPECTION / REMOVAL

Often a metal vertical seam roof may be installed over the existing roof, eliminating the need for tear-off and disposal. If you choose to install a metal vertical seam roof, MRA recommends inquiring with your installer as to if the old roof must be removed prior to install. Should you need to remove the existing roof, this will require depositing the old roofing material into a dumpster or truck for removal, including old or damaged flashings and drip edge. A good roofing crew will protect your foundation, siding and landscaping during tear-off and will use magnetic tools to pick-up nails and metal objects from your lawn and surrounding areas.

2 ROOF SUBSTRUCTURE / REPAIR

If the roof deck is in good condition, only minor repairs will be required. If not, replacement of bad wood with new plywood sheathing, OSB or boards, whichever is applicable to your type of roof, will be required.

3 UNDERLAYMENT / WATER PROTECTION

Install underlayment over the roof sheathing. The layer of underlayment creates an inner barrier against water penetrating into the house. Rows of underlayment are overlapped as they progress upward toward the peak and are normally nailed in place with sealing nails.

4 DRIP EDGE

Apply metal drip edge round the edge of the roof, both the eave sides and gable sides. The metal drip edge is nailed in place over the underlayment.

5 FLASHING / CURBS & ROOF JACKS

Where necessary, apply new valley flashing along areas where two roof planes meet. The valley flashing is typically fastened to the roofing deck.

6 VENTILATION / RIDGE VENTS

Install the ridge vent. This continuous vent along the peak of the roof will help air circulation in the attic space and can be integral in exhausting hot air and preventing winter ice dams. Ridge vents may not be included on older roofs but installing them can be a good idea whenever a house is re-roofed.

7 INSTALLATION / FASTENERS

Installation of the roofing panel should be performed by a licensed metal roofing professional with experience installing the roof style you chose.

8 CLEAN-UP & INSPECT

Complete the final cleanup and haul debris away. Have the installation inspected and approved by an approved building inspector.

Section 10 WARRANTIES

WHAT YOU NEED TO KNOW

Product warranties can be tricky, especially when it comes to roofing. Knowing what to look for in a product warranty could mean the difference between a long-lasting roofing product and one that appears to be quality but, when failure occurs, ends up being worthless.

Quality metal roofing products, such as those offered by MRA manufacturer members, typically come with a 40+ year warranty on SMP-painted products and a 50+ year warranty on PVDF painted products. And the warranties that back these quality metal roofing products are solid, offering homeowners the assurance that the metal roof they have installed will be a "life time roof".

The MRA encourages homeowners to get a copy of the product warranty being offered before making your final roof selection. Read the warranty details and make sure you fully understand what is being covered. Odds are high that, with other roofing materials, your warranty will not be as robust or provide the true coverage that a quality metal roof warranty can provide.

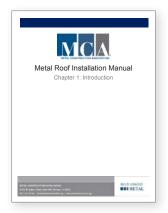
Also, homeowners should receive both a product warranty from the manufacturer and a workmanship warranty from the installer. It is important to know who is providing the warranties as well, Including the responsible company and contact information should a problem arise.

MCA ROOFING SPECIFICATION SHEET

This installation training manual addresses the installation of metal roofing material and related accessories. It includes information pertaining to both new construction reroofing and retrofit projects.

Important Note: Different roof types require specific installation techniques. The information provided in this manual does not supersede installation instructions provided by the manufacturer. Always consult the manufacturer's instructions.

To view the specification sheet visit https://bit.ly/2WK6WHI.





It is important to fully understand the warranty(s) that you will receive from your installer. While not a comprehensive list, here are some things to look for in your roof warranty...

- Is the warranty transferable?
 Does this matter to you?
- Is the warranty pro-rated

 (i.e. the warranty lessens over time either in coverage or amount reimbursed)?
- What are the warranty exceptions?
 Will these exceptions pertain or negatively impact you?
- Is it clear how to exercise the warranty? Is contact information provided?
- Do you understand the range of acceptable performance per the warranty (i.e. what is the aesthetic variance that is allowed, roof performance in certain situations)?

In summary, the warranty is an important aspect of your roof purchase and should protect you from installation issues and/or failed product performance. It is critical that you read the fine print, ask questions and fully understand what you're getting, both in product and service of your roof.

METAL ROOF CARE & MAINTENANCE

With a quality metal roof, the level of maintenance needed to maintain the roof is generally minimal, especially if the roof was correctly installed. However, performing regular maintenance and inspections of your metal roof will help ensure its longevity and aesthetic appeal.



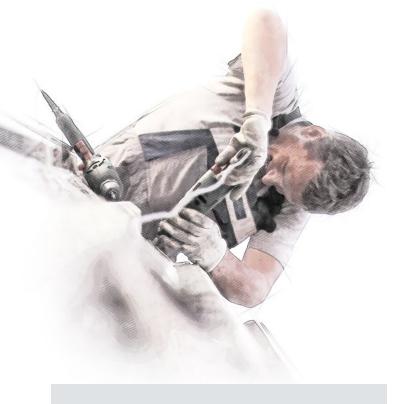
During your regular roof inspections, look for warning signs such as corrosion, scratching/scuffing, leaks or debris build-up. As with any other roofing product, keeping your gutters clean and debris off your roof will help prolong the roof life.

If you need to clean your metal roof, beyond normal rain wash, a mild solution of pure soap or non-abrasive dish washing detergent in warm water should do the trick. Washing should be conducted with a sponge, soft cloth or soft bristle nylon brush (no abrasive scourers or steel wool). A low-pressure spray may also help with removing dirt or debris.

If more rigorous cleaning is needed, other cleaning options are available. Check with your metal roofing manufacturer or installer for additional cleaning suggestions.

REPAIR

Should your metal roof need more serious repairs, such as touch-up painting or replacement, the MRA recommends reaching out to your installer. Touch-up paint is typically available for metal roofing products and the process of doing so is well defined.



BEST METAL ROOF CLEANING PRODUCTS

Plain Water

Dirt, dust, and other low-grade elements might wash off a roof with something as simple as water from a hose. Feel free to use as much water as necessary until the surface is clean.

Detergents

This is the cleaning solution that most people need to use when cleaning their metal roof because it's non-invasive and easy to do. This category includes mild laundry detergents, car washing soap, mild dish soap, and cold or hot commercial/industrial detergents.

- 1. Mix: 1/4 cup detergent (5% detergent solution) per gallon of water
- 2. Apply solution to surface using a sponge or a washcloth
- 3. Let stand for 5 to 10 minutes
- 4. Thoroughly rinse surface with plain water

METAL ROOFING CHECKLIST

Is it time for a new roof? Do any of these signs exist?

Missing or loose roofing m	naterial				
Damaged roofing materia	al distribution				
Sagging roof					
Large amounts of granule gutters or downspouts	s in your				
Exposed nail heads or loo	se nails				
Water damage inside you	r home or attic				
Missing or damaged flash	ings, curbs or roof jacks				
Noticeably higher heating	Noticeably higher heating or cooling bills				
Where you live matte prone to	ers. Is your region				
Heavy snow and/or ice	Hail				
Extreme heat or cold	Wildfires				
Hurricanes, tornadoes or high winds					
Comparing roof mate do you value in a roo					
Low maintenance	Style options				
Environmental impact	Cost				
Warranty	Expected lifespan				
Other					

Metal roofing styles. Which metal roof options appeal to you...

Shingles	Shake		
Tile	Slate		
Stone-coated			
Vertical panel (aka standing seam)			
Custom look such as			

Metal roofing colors and coatings. Things to consider...

Do you want to add the appearance of height to your home?
Do you want to stand out or blend in?
Do you live near a corrosive or marine environment?
Are you interested in cool coatings to reduce heating/cooling costs?

METAL ROOFING CHECKLIST

(Continued

Metal roofing materials are often dictated by the style you choose. Do you have a preference in the type of metal used on your home?	Warranties. You should know the following What warranties are being offered?
	Product:
Do your homework. In regards to your installer, have you	Workmanship:
Gotten referrals and/or seen previous roofing jobs?	
Verified their documentation (licenses, insurance, etc.)?	\A(I - 1 1
Finalized the metal roof style and color you want? Can they install this roof? Do they have experience/ training to do so?	Who is providing (supporting) the warranties?
Are you clear on the warranty(s) being offered/provided?	Company:
Other concerns?	
	Contact Information:
Understanding the roofing process. Does the installer follow a similar process and did they include in their estimate	Notes
Inspection and roof removal (if needed)	
Roof substrate repair and/or replacement	
Underlayment and water protection	
Drip edge protection	
Flashing, curbing and roof jack replacements	
Knowledge of ventilation requirements and installation of vents	
Roof installation using appropriate fasteners	
Clean-up and final inspection	

METAL ROOFING CHECKLIST

(Continued

Notes	



For more information visit **metalroofing.com**