

AmTrust Property Zone

Protect Your Roof-Mounted HVAC Equipment from Hail

When Mother Nature unleashes a hailstorm, your commercial building can take a beating. Your roof, siding and windows are all susceptible to damage, and that can mean expensive repairs.

But your roof isn't the only vulnerability. Any roof-mounted heating, ventilation and air-conditioning (HVAC) equipment can sustain severe damage in a hailstorm. For example, if hail strikes the fins of a coil assembly, the fins can compress. That slows down the unit's heat transfer function, causing it to malfunction or break down altogether.

Being subjected to repeated hail damage can also drag down your HVAC system and lead to malfunctions. Damage can be cumulative, and if you end up having to alter or repair your equipment, roof, ductwork and controls, you're looking at a major project and expense.

Equipment most commonly damaged by hail includes:

- Condenser coils and fan blades on roof-mounted HVAC units and air-cooled chillers
- Fan blades and fill media on cooling towers
- Coils on upright/vertical heat exchangers
- Exhaust vents for make-up air units and air handlers
- Exhaust fans

For some businesses, the downtime and lost productivity from damaged HVAC equipment can exceed the cost of repairing or replacing it.

Be Hail Smart: Protect Your Rooftop HVAC Equipment

Proactively protecting your rooftop HVAC equipment before a hailstorm is smart risk management. One of the best investments you can make in protecting your equipment is to add hail guards. These are special coverings that protect equipment components while still allowing proper airflow. Some of the more common guard systems include:

- Coil-based systems, which include an aluminum frame with a ½ inch x 1 inch woven mesh of galvanized wire or louvered panels
- Semi-rigid composite material arranged in either a square or lattice pattern
- Hail guard netting/intake filter screen systems, which use an integrated galvanized frame and heavy-duty fiber-reinforced filter screens

For additional information and resources on this topic and other safety and risk management subjects be sure to visit the Loss Control section on our website:

www.amtrustfinancial.com/loss-control

Talk to an HVAC Specialist to Determine the Best Approach

You typically have three options:

- 1. Buy the equipment with hail protection installed.** If you're putting up a new building or replacing old HVAC equipment, you may want to purchase equipment with hail guards already installed. These guards are designed specifically for the equipment and can be matched in finish and color.
- 2. Retrofit your existing equipment.** You'll need to contact the manufacturer of your roof-mounted equipment to find out if your equipment can be retrofitted with hail guards. Some manufacturers offer hail guards as an option that can be added on later. Alternatively, some third-party manufacturers can provide a protective system for your existing equipment.
- 3. Contact askLC@amtrustgroup.com,** for Hail Guard recommendations.

Important Tips to Remember

Regardless of whether it's a new installation or a retrofit, there are a few installation tips to keep in mind:

- Allow only qualified and insured personnel to install and service your hail guards
- For risk transfer information, visit AmTrust's [Loss Control Liability Resources](#), which provides guidance to safeguard yourself, including [How to Safeguard Your Loss Experience from Claims Caused by Others](#)
- Add a clause that contractors adhere to recognized safety standards, including OSHA fall protection, industry best practices for fall protection, [Hot Work Permit Program](#), environmental and vehicle operation (USDOT where applicable) rules
- Never place guards directly against fins
- Ensure guards are fastened securely to prevent movement or wind damage
- Monitor the performance of the new guards to identify and correct any reduction in airflow
- Keep guards clean and free of debris

Your rooftop HVAC equipment is a substantial investment in your business, so it pays to protect it from weather and other hazards. With proper installation and maintenance, you can protect this investment from damaging hailstorms and save your company from costly repairs.



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