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AIR CONDITIONER
ROOF MOUNTING TIPS
FOR COMMERCIAL BUILDINGS

Monkeytoe

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AIR CONDITIONER ROOF MOUNTING TIPS **FOR COMMERCIAL BUILDINGS**

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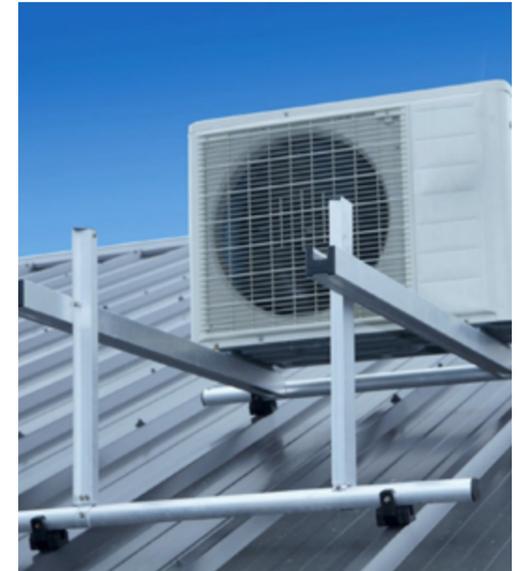
IN THIS EBOOK, WE DISCUSS 5 IMPORTANT ELEMENTS TO BE CONSIDERED WHEN CHOOSING WHERE AND HOW TO POSITION AN AIR CONDITIONER UNIT ON THE ROOF OF A COMMERCIAL BUILDING.

Mounting an air conditioner to the roof involves making important structural and material considerations while ensuring compliance with the regulatory environment.

With so many products available on the market, choosing the right provider can be challenging, and often having a tight budget can lead architects to choose cheaper materials. However, using inferior products can cause long term maintenance issues and unnecessary costs for your clients.

Like real estate, location is key when mounting your air conditioner to the roof. When deciding on where to position the units, you should take into account these elements:

- You want to place it in a location that is easily accessible but discreet.
- Take the structure of the property into account. The area should be large enough to contain the units and there needs to be enough support for load bearing.
- It should be far enough removed from occupancy so noise is not an issue.
- Allow a certain amount of space for the units to operate properly and stay clear of dirt and debris. It's sometimes necessary to fit cages around them to prevent damage and theft.
- Minimise the distance between the indoor and outdoor units as much as possible. Having a longer route connecting them is more expensive to put in place and may have a detrimental impact on performance. Manufacturers set limits to the distance between the units, which vary depending on their specification.



The roof is a logical place for most commercial premises. A system that sits on the roof but loads back to the purlin and building structure is the safest and most flexible.



[Fly-over the Cashel Square HVAC Mounting Project Mount >](#)

Monkeytoe roof fixing method

Monkeytoe top fixing roofing clips have specially fabricated jack stud which is threaded into the roofing clip then sits on the purlin below. The jack stud is then tek screwed onto the purlin and the Monkeytoe clip screws down the outside of the stud until it is sealed onto the roofing profile. Using this unique Monkeytoe fixing, all loads are transferred to the building structure - not the roofing product.

INSTALLING THE MOUNTS

KITSETS ARE USEFUL WHEN YOU ARE UP ON A ROOF BECAUSE YOU DON'T WANT TO CLIMB UP AND DOWN TO RETRIEVE YOUR TOOLS.

As an architect, you want to ensure the installation process is fast and easy, to avoid push back from contractors later on.

Kitsets are the most effective solution in the market because they can be readily adjusted on site. This means they can be made to fit with minimal effort and using basic tools.

Kitsets are useful when you are up on a roof because you don't want to climb up and down to retrieve your tools.

Where you fix through the roof is also a very important consideration; the pan of a roof should never be penetrated, there is no excuse for a penetration through them. All penetrations should be through the rib of the roofing, and the loads should be transferred to the purlins. Don't rely on your roofing profile to support equipment if you can possibly avoid it.



Watch this video to find out what you need to know prior to starting the installation of a mount on a small HVAC unit.

[WATCH NOW >](#)

WEIGHT VS. DURABILITY OF MATERIALS

When getting a system onto a roof, having a lightweight system is important. Your roof is designed as a weather shield, not to support equipment or foot traffic.

Loading up your roof with unnecessary weight can compromise the roof's structural integrity. The key is to balance the weight and strength of the materials.

Monkeytoe mounts provide full roof protection and structural integrity. All mounting is carried out using specialised clips which support from the sub-structure, not the roof sheeting. Our mounts are:

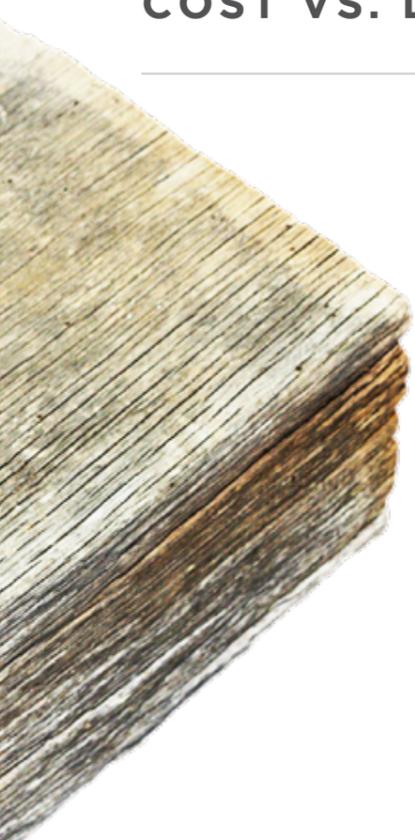
- Highly robust. Monkeytoe mounts are manufactured from marine grade, high-tensile aluminium.
- Easy, fast installation. Each mount comes with all fixings and roof connection brackets, delivered as a boxed kitset to allow for easy installation.
- Lightweight. Single mounts come in three models: Standard (0-80kg), Heavy Duty (80-150kg) and Super Duty (150-300kg) depending on the roof pitch and the actual physical dimensions, or you can ask our consultants for a special design.
- Modular, adjustable assembly.
- Supplied with compliance documentation PS1 ready for council sign off.

[Skeletal HVAC plant platform](#)



In this video Mark Terepai and Matt Harriden explain the benefits of a Monkeytoe mechanical mounting system on the Brisbane 7-Eleven building.

[WATCH NOW >](#)



You often have a choice between timber and aluminium, and aluminium outperforms timber in price including long-term and ongoing costs.

Timber is not a good material to use on roof:

- The tannin in the timber reacts with the colour steel and will often begin corroding within one year of installation, thus voiding your roofing warranty. Even where malthoid has been installed between the timber and the roofing, the same reaction happens.
- Timber sits in the roof pan which not only means that it becomes a debris trap, but it also stops the water flow down the roof. The timber then becomes water logged and very heavy. This obviously means the roof is kept wet 100% of the time. Colour steel must be given a chance to dry out and without that chance it begins to corrode. Although timber is sometimes more cost effective to install, it will cause many longer term maintenance issues and associated costs.
- Timber structures put all the loadings directly on the roof profile, not the building structure as an aluminium mounting solution does. They are also fixed through the roof pan and have no universally accepted fixing method that ensures waterproofing.

When purchasing a mount system, you want it to count. Monkeytoe's marine grade aluminium is made to last and comes with a lifetime warranty.

View Monkeytoe mount products.

The roofing industry has endorsed the **Monkeytoe®** Mounting System as a 'preferred option' for premium condenser support and roof top mounting.

The original Monkeytoe clamped-style roof fixing detail



In this video see how aluminium systems are more superior aesthetically and physically in terms of a durable, long-lasting system.

WATCH NOW >

You can minimize the effect of noisy mechanical equipment with this easy-to-intall sound absorbing wall system that's innovative, functional and versatile. HushMonkey Acoustic Panel has been developed to provide highly effective reduction of plant equipment noise.

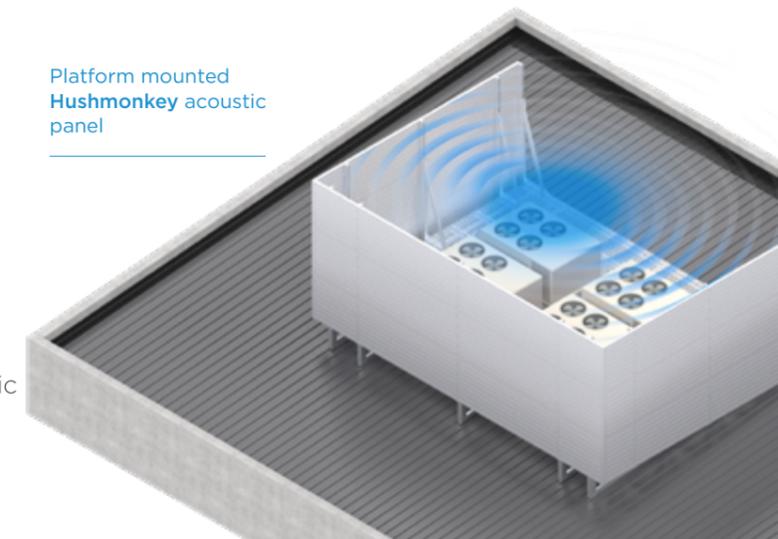
The absorptive nature of the HushMonkey Acoustic Panel delivers superior performance over a standard barrier system, with more sound being absorbed within the enclosure, significantly reducing noise emissions to the surrounding environment.

“MONKEYTOE HAVE THE PERFECT SOLUTION IN THEIR HUSHMONKEY ACOUSTIC BARRIER SYSTEM. IT'S THE BEST-OF-BREED WE BELIEVE..”

- Independent sound engineers
Norman Disney & Young

The HushMonkey Acoustic Panel offers an advanced engineering solution that is backed by thorough research, development and testing. Designers and specifiers have all the technical information available at their fingertips to confidently select the HushMonkey barrier system.

Platform mounted Hushmonkey acoustic panel



The system is cost effective and versatile, and can be upgraded with an optional secondary front barrier to maximise its acoustic performance, whilst still maintaining the ventilation air gap around the bottom of the enclosure.

HushMonkey back view - rockwool core with a perforated metal back facing





SOURCES

MONKEYTOE BLOG

[5 Things to Consider When Mounting your Air Conditioner to the Roof >](#)

[The Do's and Don'ts of Roof Access >](#)

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