
6

things you must know before buying roof racks

*Manufacturers don't want you to know
number 3*



Sales • Hire • Manufacture • Installation

Roof racks are a car accessory you don't pay much attention to so it is likely you would be unaware of what the market has on offer.

Let's start by explain the options available including fitting style, width, shape, and colour of the roof racks.

1

Understand the different choices available!

Fitting style

Depending on the make and model of your vehicle, there are multiple ways roof racks can fit. The most common styles are as follows:

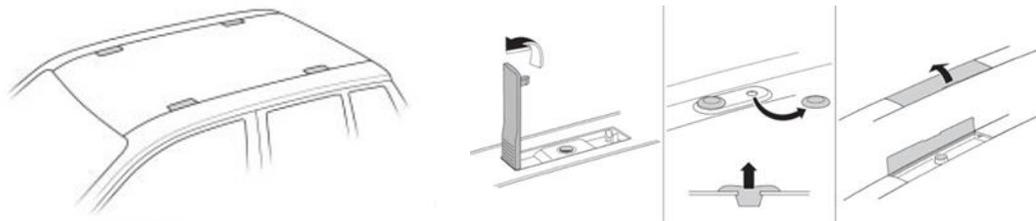
Fitting style #1: Door Jamb

This style roof rack attaches to the roof of a car by securing around the door jamb of the front and rear passenger doors. As makes and models have varying roof contours and door designs, one size does not fit all. The racks are easily removed when not required.



Fitting style #2: Fixed point style

Typically found on sedans, hatchbacks or wagons, fixed points are the dedicated mounting point for roof racks to be installed onto the car. The fixed points are usually hidden under covers. Each make and model has a unique fixing point, hence each make and model has a corresponding 'kit' which fits between the fixing point and the roof rack leg.



Fitting style #3: Track System

Tracks are a pair of aluminium strips, specific to (most) late-model vehicles. Installing the tracks requires drilling and permanently riveting the tracks into the roof of the vehicle. The roof rack leg drops into and slides along the track, allowing for great adjustability when carrying different length items.

For example: bring the racks closer together to carry a short step ladder for work and spread them further apart to carry a long surfboard on the weekend.



Fitting style #4: Gutter Mounting

This system is designed for vehicles such as vans and early model 4WDs that have protruding side gutters. They are easy to install and remove – they are ideal as a non-permanent solution yet offer great strength and durability.



Fitting style #5: Clamp attaching to raised or solid rails

Roof rails run from the front to the back of a vehicle's roof. They are factory fitted as a standard feature or optional extra on 4WDs, family SUVs or even wagons.

The legs simply attach by "grabbing" the rail, the same way your hand grabs a balustrade when walking down a flight of stairs.

These are very simple to install and remove.



Fitting style #6: Backbone

The Rhino-Rack Backbone fits to the factory roof mounting points or directly to the roof of your vehicle and distributes the weight of your load evenly through the body of the car. It's ingeniously simple and perfectly complements the full range of Rhino Rack Pioneer platforms.

The Rhino-Rack Backbone increases the carrying capacity of the roof rack and looks great!



Bar Width

Bar Width #1: Overhang style

The overhang style is when the width of the bar protrudes past the leg of the roof rack.

Advantages include greater practicality for carrying items. It is ideal for mounting a side awning, it is easier to tie your load, adds more width to carry wider items. For example, this extra width might allow you to fit two kayaks instead of one.



Bar Width #2: Flush style

Roof racks which have the end of the bar fitting inside the leg is called a flush style bar.

Advantages include a neater look and improved aerodynamics. Both flush and overhang styles support the same carrying capacities.

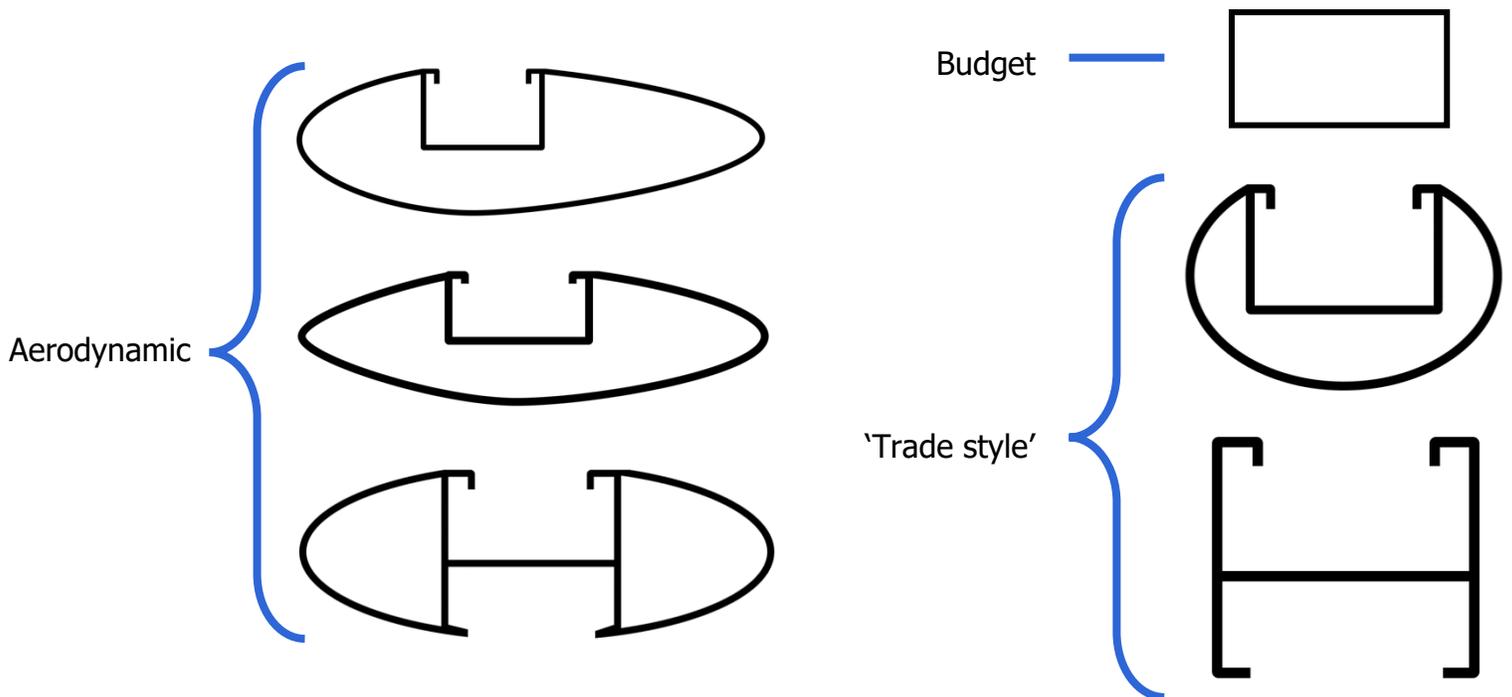


2 | The biggest misconception

Each brand offers a choice for the shape of the roof bar.

The shape of the bar impacts the visual aesthetics and aerodynamics of the roof rack system.

Despite common belief, the shape of the bars (apart from the budget options) does not influence the overall carrying capacity, this will be explained further at point number 4.



Colours

Each brand offers a choice of black or silver for the roof bars.

The black and silver bars retail for the same price for all brands.

Most bars are alloy and anodized either black or silver to be scratch-resistant. Most have a rubber insert in the top channel, where accessories can be installed (no need to drill into the profile of the bar).



3 | Roof Racks will impact your fuel economy

Roof racks do disrupt the aerodynamics of vehicles and the typical roof rack at 100km/h can increase the drag force by approximately 3N. The most aerodynamic models of roof racks increase the drag force by 1N.

In the grand scheme of things, daily commuting with your roof racks on will **NOT** impact your vehicle's fuel economy enough for you to notice the next time you are filling up at the bowser.

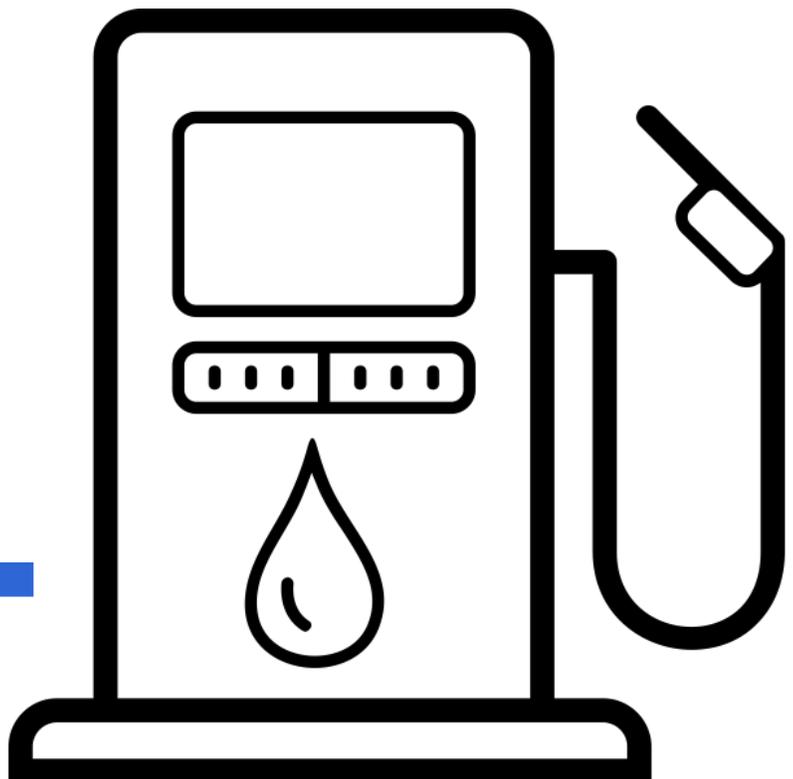
For long-distance trips (e.g. interstate driving) when the roof racks are not being used, uninstalling them is simple and comes with the benefits of improving aerodynamics while reducing wind noise and fuel consumption.

Our clients conclude the benefits of roof racks outweigh the costs.

Carrying items on the roof:

- free up spare seats in the car,
- increase space and comfort for passengers,
- can avoid towing a heavy trailer.

All roof racks can be installed and removed as a DIY job. The most common systems come with locks to avoid theft.



4 | Carrying capacity explained

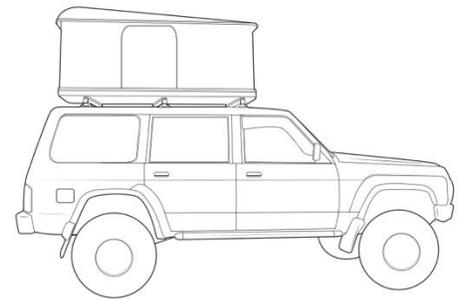
This is one of the most dangerous misconceptions you need to understand!

The carrying capacity is governed by the type of fitment and the manufacturer's nominated maximum capacity, specific to every make and model.

There are three different categories of carrying capacity for a roof rack

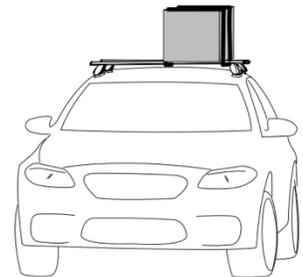
1. Static capacity

This is the manufacturer's maximum recommended carrying capacity the car can safely withstand while at a standstill.



2. Motion capacity

This is the manufacturer's maximum carrying capacity the car can safely carry while travelling on bitumen roads.



3. Off-road motion capacity

This is the maximum recommended carrying capacity the car can safely carry while traveling on dirt roads. This is approximately 60% of the motion weight capacity.

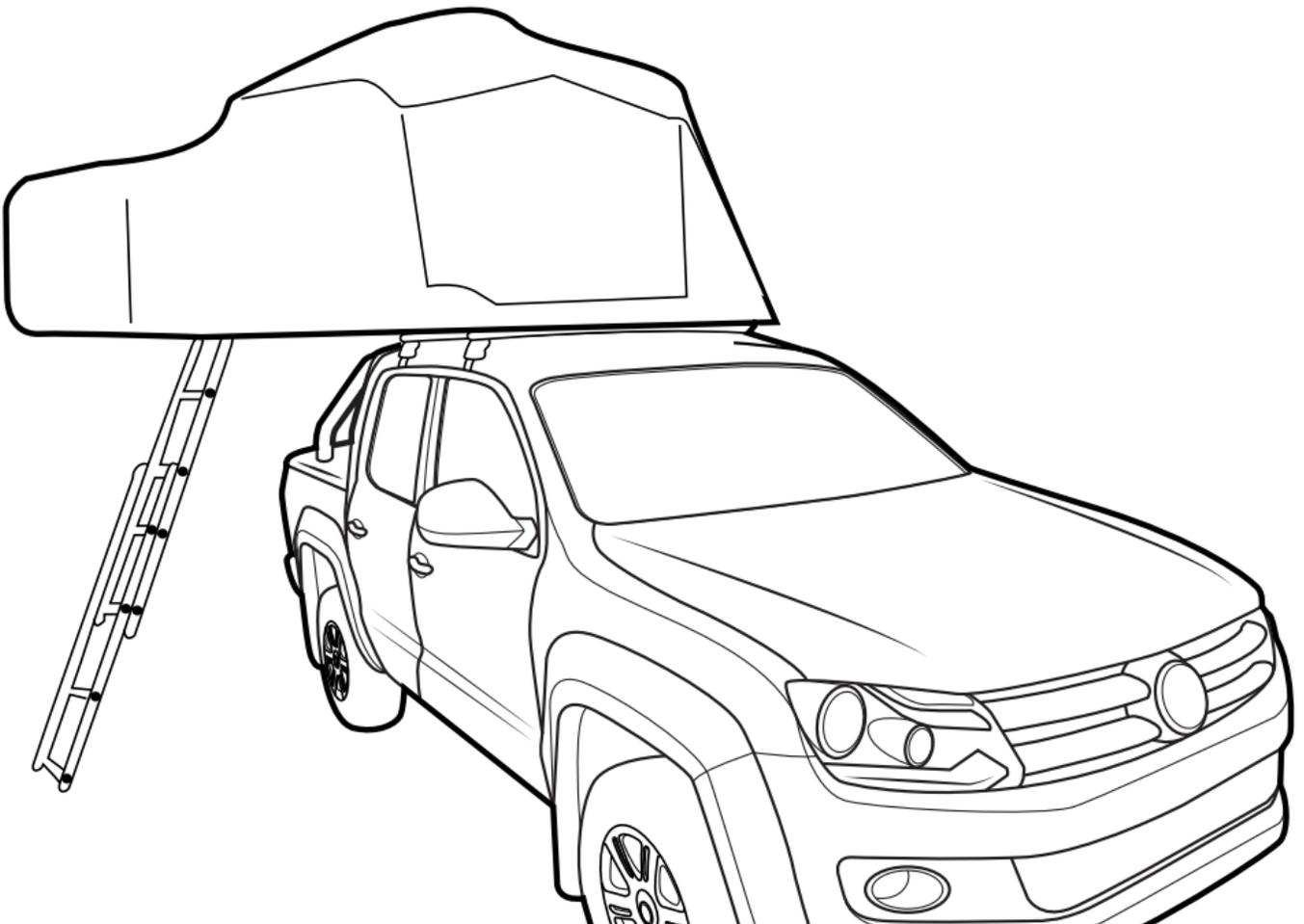


Important to know

Roof racks are engineered and tested products that are designed to be strong and durable. Typically roof racks have the potential to withstand a static weight of three times what the manufacturer recommends, HOWEVER traveling while exceeding the manufacturer's recommended carrying capacity is illegal. Too much weight on the roof unsettles the stability of the vehicle causing extreme danger.

Example

Most vehicles can carry a 50kg rooftop tent on a roof rack and not exceed their maximum motion capacity. Once parked the roof rack will safely carry the weight of the rooftop tent and 2 adults (exceeding the motion capacity but not the static capacity).



5 | What happens when I buy a new car?

The answer to this question depends on a few factors.

From which vehicle are you taking the bars off and fitting them to?

What style of roof rack system are you currently using?

The first factor to consider is if the width of the bars will be appropriate for the new car. For example does the existing car have a similar width to the new car?

If you have the overhang style bars, there is more chance the bars will be compatible with your new vehicle even if the new car has a slightly narrower or wider roof.

Generally speaking, if you are transferring your roof racks between an early and later car of the same make and model (e.g. from a 2015 Toyota Hilux to a 2020 Hilux) there is a good chance the existing roof racks will suit the new car, potentially with the addition of minor spare parts such as rubbers, clamps or installation of new tracks.

If the existing car and new car have similar fitting styles (revisit the 6 mounting styles at point number 1) there is also a higher chance the racks will be appropriate for the new vehicle.

Dependent on numerous factors such as brand, age and style, we can typically find options where you can get away with re-using at least some of your existing parts.

6

What fits my car?

Today in Australia, we have the largest variety of cars registered on our roads. More than ever before. For each make and model of vehicle available there are six main brands, each offering multiple choices of roof racks. There are a lot of products on the market!

For years we have been trialling, testing and tweaking our website. We have built a system that cuts out every irrelevant, inadequate, incompatible, insufficient and inappropriate product only leaving you the variety of products that are suitable for your vehicle.

All you need to do is select which vehicle you own.

The screenshot displays the Sunshade Products Roof Rack World website. At the top, there is a search bar and an 'afterpay' logo. The navigation menu includes 'HOME', 'PRODUCTS', 'SHOP BY', 'ROOF RACK SELECTOR', 'SPECIALS', 'RACK HIRE', 'CONTACT US', and 'GET A QUOTE NOW'. Below the navigation, the 'Roof Rack Selector' section features two dropdown menus for 'Select car manufacturer' and 'Select car model', followed by a 'Show Roofracks' button. A text block below the selector reads: 'Not sure what rack will fit your car? Our business is based on the principle "To provide the most correct roof rack system and accessories for your vehicle, application and budget. If your vehicle is not listed, please contact our friendly staff by email or phone 08 8260 6433'. At the bottom, logos for RHINO-RACK, WHISPBAR, THULE, prorack, ROSA ROOF RACKS, and YAKIMA are displayed.

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Let's try