





A row of silver commercial bike racks is shown in a park-like setting. The racks are in the foreground, slightly out of focus, and recede into the distance. The background features a green lawn, trees, and a paved path.

## SELECTING THE BEST COMMERCIAL BIKE RACK

BY SAM SIMON

There are a lot of commercial bike racks to choose from, but not all bike racks are created equal. There are key features that make certain types of bike racks better options for securing and properly supporting bicycles than others.

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### Features to Look For

Bike racks come in many shapes and sizes, but there are a few common features that a bike rack should have to make bike parking the most secure and accessible.

Make sure the bike rack you select meets these criteria:

It's important that a bike rack support the frame at least two different spots horizontally. This helps keep the bicycle from falling over. Some racks create two points of contact but are directly above each other. Other racks only allow for one point of contact. This makes it more common for the front wheel to turn and cause the bicycle to fall. This can damage the bicycle and create a hazard when the bicycle is lying on the ground.

The rack should also be able to support bicycles without a diamond-shaped frame or a horizontal top tube. Some women's

specific design or step-through frames would be examples. You should be able to lock the frame and wheel to the Bike Rack. It is quick and very easy to remove the wheels of most bicycles. This is why both the frame and at least one wheel need to be secured to a bike rack. If only the wheel can be locked up, many thieves will remove the frame from the wheel and take the rest of the bike.

### Mounting Bike Racks Securely to the Ground

How a bike rack is mounted to the ground is critical. If a bike rack can be dislodged from the surface it becomes useless. In-ground mounts are the most secure. With this installation method, the bike rack is set in place and concrete is poured, encasing the legs of the rack in concrete.

Surface mounts are a good option for racks being installed on existing concrete surfaces. Racks with this mounting option have flange plates with mounting holes. Anchors are inserted in the holes and adhere the rack to an existing concrete pad. This is not a viable option for installing a bike rack on asphalt or pavers.

Rail mounts are more suitable solutions for existing surfaces of concrete, asphalt or pavers. These can then be anchored to the surface or left freestanding. Freestanding racks offer less security. These would be best used where there is additional security—like fenced-in or actively monitored areas.

### The Bike Rack Should Resist Cutting, Bending, or Deformation

The bike rack itself can be attacked by thieves to access locked bikes. A good bike rack should resist cutting, bending or deformation by common hand tools such as bolt or pipe cutters, wrenches and pry bars.

These items are commonly used by thieves as they can easily be carried and concealed under clothes and in bags.

To make the rack the most secure, diameter and shape of the tube are the primary factors to consider. The greater the diameter of tube, the harder it will be to bend or cut. A tube diameter of 2 3/8" is recommended. Minimally, the tube should be 1 7/8" in diameter. A square tube shape will more easily defeat common cutting tools carried by thieves as compared to round tubing.

### Aesthetics

When it comes down to it, a bike rack that properly supports and secures a bike may only be a thing of beauty to users of bike racks. However, there are options to enhance the aesthetics of a bike rack.

A common choice for bike parking is galvanized steel bike racks. It has a dull, silver/grey color and slight texture. It is also the most durable and maintenance-free option.

Stainless steel has a silver/chrome look. It also has a higher resistance to cutting than galvanized. Stainless will require more upkeep and is the most expensive finish.

When looking to add a pop of color to a bike rack, you can select from a standard set of powder coat finishes. Custom colors are an option, but typically come at an additional cost. Powder coating will also provide your bike rack with an additional

level of protection from the environment. If none of this allows your campus to express its creativity, there are several customization options for bike racks.

### Accessibility and Usability

When the elements of a bike rack don't meet the primary criteria, riders will typically secure their bike in unintended ways to achieve optimal security and stability. This can significantly reduce the number of bikes that can be parked as space on the rack and access to lockable elements is blocked.

Additionally, if racks are not spaced properly, bikes are forced to be parked too close together. This causes conflicts where handlebars overlap and can result in damage to bikes or injury to users as bikes are loaded into and removed from the rack.

### Recognizable and Intuitive

If it's not apparent the bike rack is for parking bikes, it will go unused. It should also be intuitive for the rider to know how to properly secure their frame and wheel to the rack.

### Additional Stability

While bike racks that offer two points of contact do a good job of keeping the bicycle upright, wheels can still turn. Bike racks that provide a well to hold the wheel AND two points of contact provide much greater stability for the bicycle.

With bike racks that have a wheel well, the two points of contact is a must. When "bike racks" have only a wheel well, it becomes very easy for the wheel to be bent.

### Bike Racks to Avoid

#### Wheel-well only

The appeal of these bike racks is in the simplicity and relatively low cost. This is where their benefit ends. The main problem with these racks is that only the wheel can be secured, leaving bikes susceptible to theft.

The other main concern is the damage they can cause. Bikes in these racks are easily pushed over—inadvertently or not. This leads to bent wheels. Also, the openings are often not wide enough to receive wheels with larger widths, like mountain bikes, and can bend spokes.

WHEN IT COMES DOWN TO IT, A BIKE RACK THAT PROPERLY SUPPORTS AND SECURES A BIKE MAY ONLY BE A THING OF BEAUTY TO USERS OF BIKE RACKS. HOWEVER, THERE ARE OPTIONS TO ENHANCE THE AESTHETICS OF A BIKE RACK.

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**Grid Bike Rack**

This common style of bike rack is found in campus courtyards and in front of businesses because of their familiarity and perceived capacity for parking many bikes. Like wheel well only, grid-style bike racks share the same problems. When used as designed, it is not possible to secure the frame and wheel to the rack.

Bicycles are supported only by the bars of the rack at the wheel. Making it likely that bikes fall over and increasing the possibility of damage to the bike. There's a reason these racks are often referred to as wheel-benders.

The lack of desirable features from grid bike racks typically leads to an additional problem—unintended parking. To better support and secure bicycles at these racks,

bikes are often parked in unintended ways. The result is fewer bikes can be parked at the rack than what is advertised.



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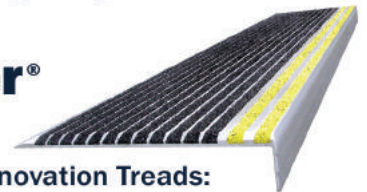


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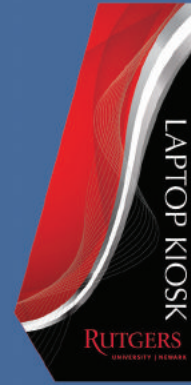




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