GUIDE LINES TO CHOOSE THE RIGHT WHEELS

In this paper we will talk about wheels, explaining how they influence your riding experience. In the market you can find a lot different models, and it's very important to match them with trucks and the deck, in order to create a longboard that works well.

We can divide the features of the wheels into:

- **Material** with which it is made.
- **Geometric features**.

Blood Orange Alpine Series

MATERIAL

All the wheels in the market are made with **urethane**, but not all are the same!

We have soft wheels and hard wheels. The **durometer** is the parameter used to indicate the hardness:

73a  100a

Soft wheels

Good for carving and cruising in the city, have a lot of grip in turning.

Can be used over rough asphalt and doesn't matter if you hit small stones on the ground. They are not good for sliding but you can ride them also at high speeds when you need grip.

Hard wheels

Ideal for smooth surfaces, skate park, and sliding at medium speeds. Can be very difficult to control slides at high speeds. Transmit a lot of vibrations to the deck, they are not good for carving or cruising around rough asphalts.

GEOMETRIC PARAMETERS

Most important geometric parameters which define a longboard wheel are:

- **Diameter**.
- **Contact patch**.
- **Position of the bearings**.
- **Shape of the edge**.

Let's start from **diameter**: it goes from 60 mm to 100 mm.

Less than 60 mm is used for skateboards and more than 100 mm for go-kart!

The most common sizes for longboard wheels are between 65 mm and 76 mm.

Small wheels are good for sliding at medium speeds, and work better with smooth asphalt, because they transmit much more vibrations to the deck.

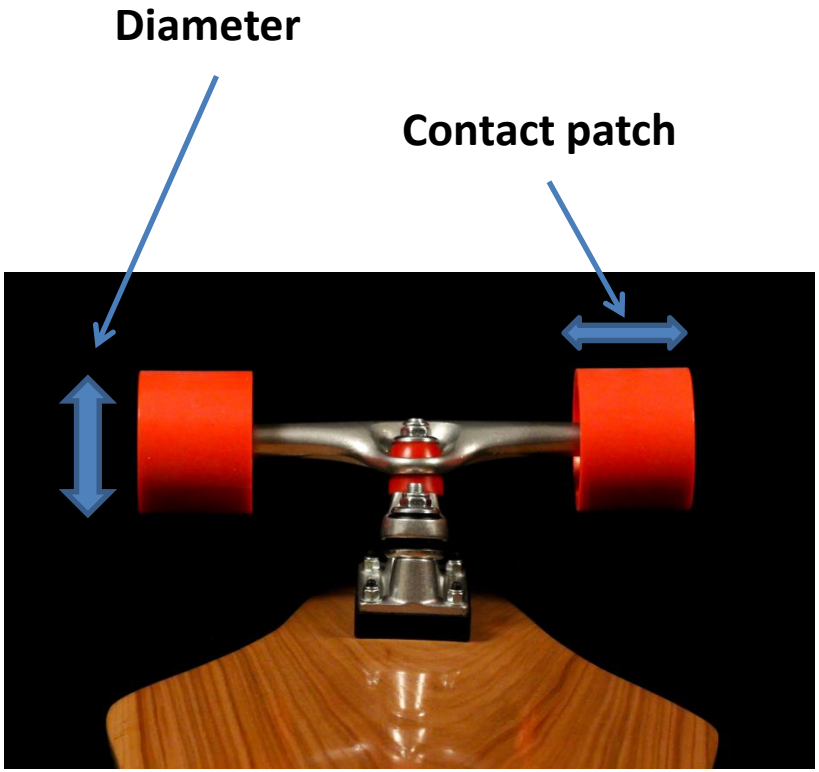
Big wheels are for a cruising around the city, and also for carving, they give you more grip but will be more heavy, so they are not good for air tricks. Big wheels have more urethane and it means more absorption of vibrations given by rough asphalts.

CONTACT PATCH

Contact patch is the part of the wheels that touches the road.

It can vary between **30** and **70** mm.

With a great contact patch you will have a lot of grip, but also high friction, so you need to push a lot to gain speed, it ensures good feeling in carving.
With a small contact patch you will go faster, but you will have less grip during turns.
For this reason small contact patches are perfect for sliding.



POSITION OF THE BEARINGS

SIDESET

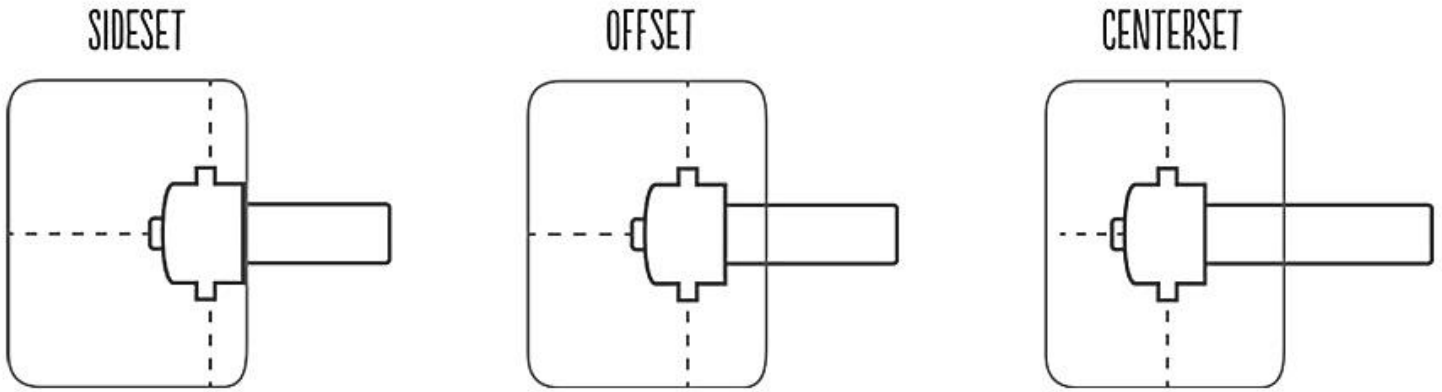
Bearings stay in the inner edge of the wheels. This is not good for sliding. It's ideal for carving, the distance between wheels is maximum, it gives you great grip.

OFFSET

Bearings stay in the inner side of the wheels. It has intermediate properties between sideset and centerset. Most of the wheels are offset.

CENTERSET

Bearings are in the middle of the wheel. This feature it's perfect for sliding and freeriding. It's not good for carving and deep turns.



SHAPE OF THE EDGE

Every wheel has two edges: the inner one (closer to the center of the board) and the outer one (far from the center of the board).

Sometimes they are the same, sometimes they are different.

Both the edges **rounded** will be perfect for sliding, asphalt it's never a perfect surface, it has a lot of small irregularities, if the edge of the wheel is rounded you will have less friction and the slide will be smooth.

If both the edges are **squared** you will have a lot of grip in turns but it's not good for sliding because it can generate vibrations.

Sometimes you can find wheels with the outer edge rounded and the inner one squared, in this way you will have intermediate properties.