

## 100-km is just a warm-up, 500 km is the goal.

We reconfigure the human body and bicycle to create an innovative bike saddle. It guards your health, raises your limits and makes you stronger. Both of innovative saddle design and cycling mechanics significantly improve the efficiency of pedaling.

The center of the saddle sinks completely. Whether you're on 24 hours cycling or 500 km challenge, there isn't any pressure on the perineum, which greatly reduces the burden on the legs and allows you to ride faster, longer and further. Every cyclist can surpass all his own peak records easily after proper practice.

All-wings saddle has been exclusively represented by Bikero company in the Czech Republic. It's not only loved by local cyclists, but also affirmed and strongly recommended by physicians who are also cyclists. And they will research the unique and amazing design of All-wings saddle in deep.

There are agents or exclusive agents already in some countries now. And we are actively looking for agents all over the world. Respond to the revolution of bike saddle together.

Nothing is impossible.

# Material



Net weight: 207g Max load: 100kg





Extremely flexible & strength







### **Pressure Transfer**

The design of All-wings is to completely transfer the pressure of the perineum caused by the traditional saddle to the ischium on both sides, and the ischium is the part where the entire pelvic cavity can bear the most impact. Even if the sitting point moves back and forth with changes in terrain and riding posture during riding, the central area is completely hanged without any pressure, and all the pressure obviously falls on the sit bones on both sides.

Since all riders have long been accustomed to the traditional saddle, All-wings has no nose, so beginners may feel uneasy because there is no pressure or rely on the crotch at the beginning. It may take some time for some cyclists to adapt it.



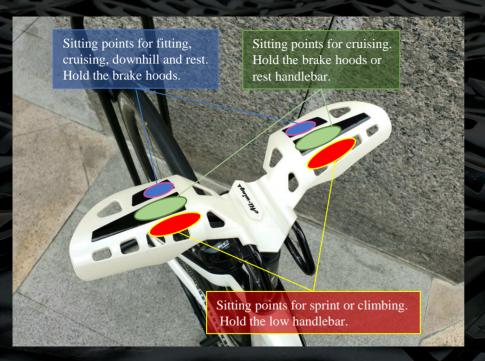
## Left and right positioning



The rail extending forward and downward forms an angle of about 90° with the wings. When riding, the rail will not interfere with the pedaling action of the legs at all.

When push down, the thighs are deliberately moved inward, it plays an obvious role in positioning and provides the satisfaction required by the legs.

Bikers who are accustomed to the nose-clamping action when cornering downhill also make good use of this action to replace their previous habit.

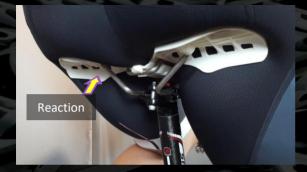


# **Change of sitting points**

The common experience of many people when sitting on the conventional saddle is at the beginning of the ride, the hips were indeed sitting on the saddle evenly, but after a period of time, in order to reduce the pressure of the perineum, some cyclists always sat on the side of the saddle.

All-wings saddle allows you to sit in a stable manner throughout the whole journey. The two ischial bones are equally stressed. With the change of riding posture, the forward and backward movement of the sitting point can simultaneously achieve the purpose of reducing the pressure on the sit bones.

The pressure of the perineum and hip ischium is the lightest when bending down and holding the low bar to sprint.



The right leg starts early to output force from the 12 o'clock position to the 5 o'clock position.

Because the wings are against the root of the left thigh to prevent the body from sliding backward, the pedaling kinetic energy won't be lost any more.

When the left leg outputs is the same.

The action of applying force is simulated to the use of muscles during running.

## **New cycling mechanics**





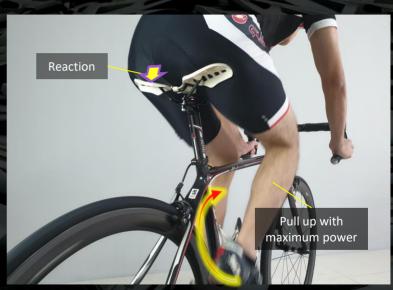




# Pull up

Many cyclists said that when using conventional saddle, they always pull up the pedal only when they get up, and they will not pull up when sitting. Everyone can't abuse themselves. Because the force of pulling up is proportional to the pressure of the perineum. Pulling up does indeed often cause a spin off situation in which the rear wheels lift off.

So please sit and pull up. When the right leg is pulling up, the reaction force falls on the left hip ischium, which completely avoids the perineal oppression. Your body weight firmly presses the bike through All wings saddle, so no matter how hard you pull up, the rear wheel will not be lift and the kinetic energy output won't be reduced. Your biceps femoris is your new exercise program. It also has a lot of exercise. You will even be able to ride a long distance uphill by sitting and pulling up.



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## **Cycling uphill**



Use the trainer and small stool to simulate the angle of uphill, then try to keep pedaling.

The wings against the rear of the thigh already it prevents the body from sliding backwards.

It's not necessary to stand up and pedal. You can sit, then push down and pull up throughout the uphill journey.

Even if you let go of your hands, your body will not slip backwards. Kinetic energy won't be lost any more.

All-wings will help you to recover the kinetic energy that should not be lost.



Even if you hold the lower handle all the way uphill, there is also no pressure on the perineum.



During the triathlon race, starting from an appropriate distance before the transition, sit and pull-up output instead of push-down output, it allows the quadriceps to have sufficient rest time until it reaches the transition. Your legs won't be weak, and you don't need others to help you to convert to running anymore.

This is the biggest advantage of the All-wings saddle used in triathlon.





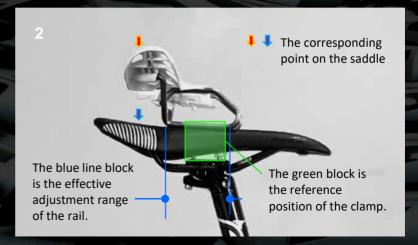
2. All-wings saddle compared with traditional one, their effective adjustment range of seat rail are overlapped completely.

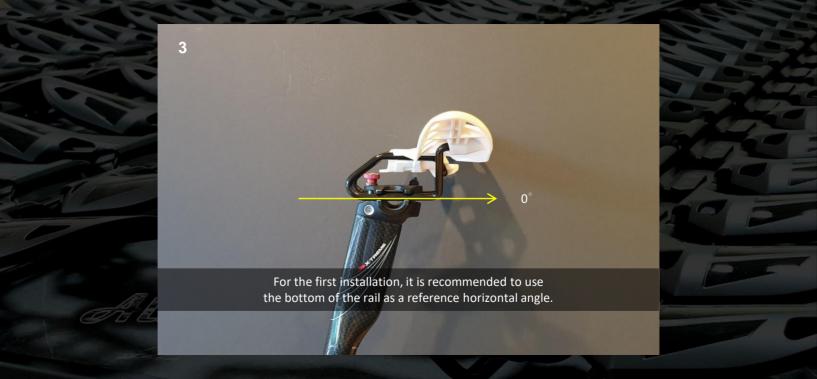
The corresponding points of the ischial bones of the 2 kinds of saddle are also overlapping.

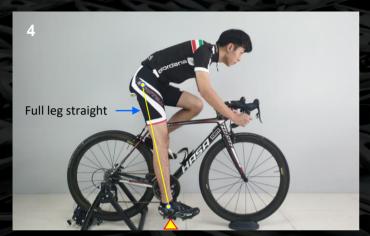
Before removing the original saddle, it is recommended to initially compare the installation location.

# **Installing & Fitting Guide**

1. The blue area is the correct ischial contact point.







After the cyclist seat on the correct position of the All-wings saddle, the heel is stepped on the center axis of the pedal, pedaling to the bottom dead position, and the thigh and the calf are fully extended. When the ischium sits on the corresponding point, the heel must be able to step on the pedal steadily at the same time. This height of the saddle is the ideal height.

## Saddle height setting



The apex of the yellow triangle is the axis of the pedal.

We recommend the cyclists who use All-wings saddle for the first time to lower this ideal height by 1 to 2 cm, which will make it easier for you to adapt to All-wings saddle in the early stages. After each 50 km riding, fine-tune the height upwards. Adjust 0.5 to 1 cm each time.



# Saddle height setting

The apex of the yellow triangle is the axis of the pedal.



After stepping on the pedaling position, the thigh and calf appear slightly curved.



After the cyclist sit on correct point of the All-wings saddle, the heel is stepped on the pedal axis, and the pedal is held at the 3 o'clock position. The calf bone area should be perpendicular to the ground.

# Saddle forward/backward position setting



The position of the saddle is the ideal position. We suggest that you can fine-tune the saddle position based on your personal riding habits and feelings.



The angle between the front edge of the knee and the plumb line is about 15°.

# Saddle forward/backward position setting





After completing step 7.

The geometry setting below the waist is almost complete. Don't move your hip, your elbow is slightly bend and your hands cannot hold easily on the brake hood, it means the frame size is too big. It is necessary to replace the shorter stem not just move saddle forward.

Otherwise... this will cause numbness in both hands during long rides or cause your body to bouncing when you pedal on high frequencies, or your body always slips forwards.



- A. At the beginning, it's installed horizontally based on the bottom of rail.
- B. If the body is easy to slip forwards, adjust the angle like this. After fully adapting to All-wings saddle, adjust back to the horizontal angle.



C. After adapting All-wings saddle completely, this angle of installation is suitable for racing cyclist and time trial bike.

# **Setting of angle**

The bottom of rail
Horizontal line



When users found the following scenario while riding ...

Q1. Body slips forward easily, can not sit at stable positions.

### A:

- 1. adjust saddle tilt angle slightly backward.
- 2. lower the seat post.
- 3. Move saddle forward.

Q2. Shoulders and arms being stressed and feel hard.

#### A:

- 1. adjust saddle tilt angle slightly backward.
- 2. lower the seat post.
- 3. Move saddle backwards.
- 4. Replace a shorter stem.

Q3. Genitals or inner side of legs rubbing saddle surfaces A:

- 1. lower the seat post.
- 2. It could be backwards seated. Move the body forwards.
- 3. adjust saddle tilt angle slightly forwards.

### Q & A

Q4. Uncomfortable feeling of legs during paddling

A:

- 1. lower the seat post.
- 2. It could be backwards seated. Move the body forwards.
- 3. adjust saddle tilt angle slightly forwards.

Q5. After riding for a while, your hands will be numb...

A:

- 1. This condition may usually be the result of straightening your arms while riding, and it is recommended that your arms should be slightly bent when riding.
- 2. The distance from the saddle to the brake hooks is too long. This is usually caused by the length of the top tube is too long. It is recommended to replace a short stem to solve the problem. All-wings bike saddle design was improved from conventional one. Bikers must try to adjust best positions repeatedly to obtain best experiences.

#### **CAUTION**

Precautions for usages under cold and dry weather conditions.

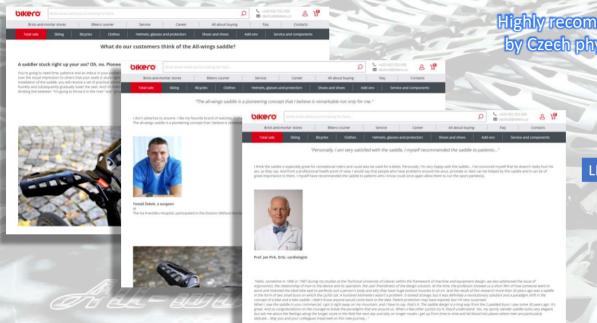
This saddle is made of nylon, it shows tough and flexible physical properties under common humidity environment since nylon was good absorbers of water particles. However, when moisture under 40% or temperature under 0° conditions disappeared, nylon could be becoming hard and fragile. This symptom could be found when saddle exposed to cold and dry air conditions for long time.

An easy way to examine the saddle condition is to press the saddle surface lightly by hands. In consideration of safety, please do not use the saddle if fragile feeling appears on hands.

An easy solution is to soak the saddle in warm water (temperature between 40  $^{\circ}$ C  $^{\sim}$  50  $^{\circ}$ C) for 30 min  $^{\sim}$  1 hours ... thereby the saddle could recover its initial conditions.

★★★ Do not use boiling water. ★★★

The rail has an anti-rust surface, but for people who sweat a lot, the sweat is corrosive. It is recommended to clean and maintain the rail with anti-rust oil.



Jan Brázda

# Highly recommended by Czech physicians





# All-wings saddle community





Lam a new cyclist in Muscat, Oman, I. purchased a road bike for the purpose to ioin a triathlon. Within 3 months of using my bike. I felt pain in my genital area due to the pressure of the saddle in the middle part during cycling. The longer the time I do cycling, the more pain I feel in the genital area. So I decided to look for an alternative saddle in YouTube in order to have comfort while cycling. I found a lot of saddles similar to mine. One saddle that catched my attention was the All-Wings Saddle Taiwan (which had a different style/design). I found it on Amazon and decided to purchase it. During my first use, I didn't experience any pain on my genital area not like my previous original saddle. This was because in the saddle, there was an empty space on the genital area, so it did not cause any pressure. The pain that I experienced is due to the direct contact of the saddle wing. It took A 以粉絲專百 using the new saddle before的身分互動

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adjustment so that you will not slip and fall. Patience is needed during adjustment in order to get the proper angle of the saddle. It took me 1 month to fully appreciate this saddle and become comfortable with it. Now I'm enjoying cycling with this new saddle. The longest time I used it is 3 hours straight without pain. My focus now is on improving my speed because I'm new to cycling.

#OMANTRIATHLON

#PHILIPPINESTRIATHLON





# ← All-wings saddle Co... Darryl McNeal 6月15日08:33 - ...

Man I love the Hayabusa! Most riders say you have to ride your seat for a while before you get used to the pain but with this seat there wasn't any pain to worry about after riding. So far I've done two hundred miles on the seat without the pain! Changing to this seat was the best decision I could have made.





Hellol Guys I would like to share my first ride experience with All-wings saddle Taiwan B. Biking is the best hobbits exercise for me, and other people likely too. Exploring the world from the saddle can be one of the best experiences for me. What are you waiting for? Buy and experience for those in love with biking, explore your lands or where nation you are. Rides with All-wings is a great experience.









#### Awards:

1. 2017 Taipei Int'l Invention Awards The Platinum Award

2. 2018 Taiwan National Invention Awards The Silver Awards

3. All-wings saddle has been permanently collected & displayed at the National Science & Technology Museum of Taiwan since 2019.





Taiwan

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CHINA

ZL 2013 2 0047201.8 ZL 2013 1 0146864.X ZL 2013 1 0184826.3 ZL 2013 1 0146967.6

USA

US 8.944.501 B2

**JAPAN** 

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