

bikefitting.com



Specialized.com





Simple, Intuitive, Powerful – Real.

For every type of usage, a good position on the bike is key. It is the result of a careful balance between power, efficiency, resistance and comfort. A good position can prevent injuries and increase comfort while riding the bike! We have developed a modular concept for every type of rider, from commuter bike to high-end road bike.

- Our **Static Measuring Jig**, a quick and effective procedure to find the matching bike based on accurate and reproducible anatomical measurements of the rider.
- Set up the correct position with the **Position Simulator** using the laser guided XY coordinates. Make sure that the changes that are made are validated with our **Pedaling Analyzer**, going deeply into the specifics of the 'motor' of the rider through a detailed analysis of the forces applied to the pedal in three directions.
- The high-end **Motion Analyzer** tops of our concept. This highly accurate 3D analysis sensor is developed together with the Shimano Dynamics Lab team to ensure the most precise and fastest dynamic fit!

STATIC FITTING

Static Measuring Jig

The 'Static Measuring Jig' is the foundation of our company. With just 10 measurements as input, it translates the rider's body dimensions into bike positions for all kinds of disciplines and preferences.

We have enhanced the static measurement over the last decades, in order to provide reliable data for selling the right bike. Not only will it give you the numbers to build a custom frame, but it also translates those numbers to over 60 brands and 3000 frames to determine and calculate the ideal frame size for your specific customer.

This step is the basis for all further fitting done in our program. It gives XY data that guide the set-up of the Position Simulator. Furthermore it fully integrates with the final optimization on the Motion Analysis camera!



Position Simulator

Together with Shimano Dynamics Lab engineers bikefitting.com has created the Position Simulator. You can use the result from the static fit to get started on this bike. With built in quick releases for handlebar and saddle it is also a great tool to test and sell components on the bike.

With the included XY copy tool it is easy to set up the bike in the precise setting computed by our program or to copy geometry from an existing bike.

The integrated 3D pedaling analyzer will keep track of performance and efficiency. Furthermore, it may help to find asymmetry of pedaling techniques. Based on the analysis, the rider can be supplied with a training program to improve the asymmetry.

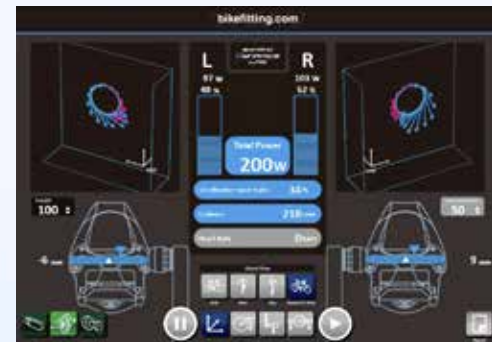


POWER ANALYSIS

3D Pedaling Analyzer

With the 3D Pedaling Analyzer you are able to get into depth on the riders performance. It does not only measure power output, but it can tell the direction of force applied to the pedals at every 7 degrees of the crank revolution, both left and right. This enables you to objectively look for asymmetry and left/right imbalances, and can help to improve stability and gain insight in how effective the riders pedaling technique really is!

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Graphical User Interface

It is not only the hardware, but the software that makes our offer powerful. The interface is designed to be simple to understand, yet powerful to operate. The GUI shows what happens at the pedal in REAL time. Record, visualize and analyze with unique data to improve the riders effective force ratio, stability and more.



Effective Force Ratio – defined

A force fully tangential on the crank throughout a whole pedal stroke would imply 100% effectiveness. This degree of perfection does not exist in the real world, because there will always be some degree of inefficiency, imbalance or asymmetry in the pedal stroke. The effective force ratio quantifies the level of imperfection, thus providing the rider an objective measure of their mechanical efficiency. All effective forces are measured in 3D and displayed fully independent left and right by our Pedal Analyzer.



Force Distribution on Pedal Axis

Ideally all the power placed on the pedal should go straight down onto the middle of the pedal axis. However due to instability of the foot or various other reasons this might not be the case. In this screen we can see how the power is applied throughout the pedal stroke. With changes in cleat adjustment and adaptation of the insole to the anatomy of the rider's foot the foot stability can be improved significantly. The interface in our software will guide you to potential solutions in this respect!

DYNAMIC FITTING

Motion Analyzer

Shimano Dynamics Lab technology brings the bike fit to the next level. Integrate rider specific characteristics, flexibility and riding style in order to further optimize the static fit. With two simple modes it allows everyone to operate this equipment:

1. In Wizard Mode, our software brings built-in biomechanical knowledge and expertise to the fitter to enhance the quality and consistency of their bike fitting service.
2. In Advanced Mode, access to all data (for example joint angles and length) is made available to fine-tune the position of the rider, based on the knowledge and skills which are acquired from our education program and experience as a bike fitter.

The digital frame geometry plug-in will provide accurate recommendations of bikes and components fitting the need of the rider.



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ABOUT BIKEFITTING.COM

Total concept

We see that different brands have developed an array of bike fitting tools, which means that a dealer needs to cherry pick from multiple brands in order to get all the tools together to come to an optimal bike fit. Especially when these tools give a different output, the end result (i.e. the advised position on the bike of the customer) can be variable and subjective based on the dealer's judgment.

That is why we set our goal to offer a step by step upgradable system in which all steps are integrated. You can start with any level required for your business and upgrade at any time!

With the built in logic, we create a repeatable setup and software with all stages integrated to ensure a high quality standard throughout all levels. Of course differences will be present from static to a dynamic fit, because different elements are taken into consideration. With a Dynamic fit we look at flexibility and other personal traits to personalise the fit. With static fit this is not possible and we assume a good neutral fit based on body dimensions. Therefore this process can give a neutral starting point but an upgraded personalized advice with the Motion Analyzer.

Why bikefitting.com?

Many dealers have years of experience and have a good 'eye' when it comes to a bike setup. However, an eye can only see this much. Our tools help to offer a professional service to the end-consumer. This builds trust, loyalty and offers something the internet cannot.

With our tools we provide a repeatable, consistent output that greatly improves believability, speeds up the sales process and can stimulate additional sales as well.

Company history

bikefitting.com was founded over 27 years ago. Originating from a shop with many professional athletes, the question: "How do I need to set-up my bike" came along many times. In these circumstances and with several sports doctors and other professionals the foundation was laid for bikefitting.com.

Later it was decided to bring the knowledge and tools to every bike shop that was looking for a professional service. So bikefitting.com grew largely by mouth-to-mouth advertising and became very popular in Western Europe. Today, we are part of Team Shimano and benefit from their extensive network to give everyone access to our tools.

Research and Education

We recognize that there are many different people interested in using our equipment. Some with a medical degree, but limited knowledge of bike geometry. Others with vast experience as a bike dealer, but with limited physiological and anatomical knowledge.

We offer different levels of education for every product. All of them are a carefully selected balance between theory and day-to-day practical use. Contact your local distributor to find out how to get educated!

Research Centre

We don't just build products, but we test them on the best athletes available in the peloton. Due to the nature of some of our cutting-edge technologies, we keep finding new ways to utilize our equipment for further analysis. That is where our research centre comes in. We do our own measurements to optimize the tools and software, and from that we guide and fuel further research and development into bikefitting.com.

Accessories

Saddle Height Adjuster

Copy saddle height



Shoe Cleat Adjuster

Correctly set up cleats



Digital Protractor

Measure absolute or relative angles.



SPECIFICATION



Static Measuring Jig

- Effective body height range 1400mm~2100mm
- Footprint 700mm x 550mm Height: 2200mm
- Use with basic or standard measurement: 4 vs 10 measurements
- Includes: Arms, inseam, torso, feet length, total height and shoulder width.



Position Simulator with Pedaling Analyzer

- Effective body height range 1500-2000mm
- Assembled Dimensions: Length: 1545mm Width: 755mm
- Weight: 70 kg
- Saddle Height: 520 to 905 mm
- Handle Unit Center: Stack: 460~820 mm Reach: 235~550 mm
- Handlebar mount 31.8 and 26.0 compatible
- X-axis 3mm / Y-axis 1.5mm travel per turn of the handle
- Included 3D Pedaling Analyzer
- Adjustable crank-arm length 155-180mm
- XY Copy Tool - Laser guided copy / setting up tool
- Elite Realaxiom wired load generator



Motion Analyzer

- Intuitive Wizard Mode software and Advanced Mode capability
- Auto-level with built-in accelerometer. Plug and play!
- RealTime Biometric Analysis at 14.3 ms/sample
- Angle Measurement Accuracy at 120 RPM is 10 degrees
- Biometric Sensor Accuracy up to 0.1mm
- Overlay 2D webcam video with LED data showing real-time angles
- Compact Sensor Array Bar of 400mm
- 8 LED Harness (2 included)

Shimano Dynamics Lab,
the concept and technology that
powers and fuels the tools of
bikefitting.com, created by a team
of passionate engineers.



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XY POSITION TOOL

Fast, accurate, easy to use, digital.

This product was first designed as part of the Position Simulator to measure the XY coordinates, with a laser, of every item on the bike. bikefitting.com used this design and created a stand-alone version to be used in combination with the software solution and all other tools.

The XY Position Tool uses highly accurate technology to ensure a millimetre accurate measurement result. It can be used without taking the wheels off and is suitable for any bicycle type. It always uses the centre of the bottom bracket as a starting point. From there it calculates XY coordinates for handlebar, saddle and it can be easily used to track any other position of the bike, for example stack and reach measurements, triathlon handlebar position, brake lever position etc.



Including two XY target tools

One caliper that easily slides onto a saddle. This tool will find the centering point at saddle width of 80mm. This is a widely used number with various saddle manufacturers and create an easy reference to set-up and copy the position of the saddle.

The handlebar clip-on allows for easy reading of X and Y data without removal of the handlebar itself.



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SPECIFICATION



XY Position Tool

Several benefits that come from using the Digital XY Replicator:

- No need to take out the wheels: The complete bike can be put in the bike holder;
- Additional XY target tools to find the exact reference point on saddle and handlebar;
- Highly accurate due to technology used;
- Quick and easy tool to measure existing bike, store the measurements and replicate them to a new bicycle;
- Very stable platform, does not require level floor to operate.
- Integration with bikefitting.com software and XY coordinate systems.
- Usable with any bike type.
- Bike Holder is length adjustable



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