WE ARE FULCRUM

SINCE 2004, FULCRUM® HAS DEVELOPED WHEELS FOR BIKES WITH A SOLE, CONSTANT OBJECTIVE IN MIND: TO DELIVER THE BEST PERFORMANCE THAT MODERN TECHNOLOGY CAN OFFER.

A large part of this task is responsibility of the R&D division engineering team in Italy. However, if you want to create ever faster wheels, you cannot focus solely on test bench results; you also need to gain feedback from top riders and cycling fans worldwide.

And this is what we do: we race our bikes during lunch breaks or after work, we test our wheels by pushing them to the max, fitting them to the bikes of world champions, listening to suggestions and comments from the world of racing and from our clients. This continual exchange of ideas enables us to imagine and develop our new projects, with the aim of lending a precise, well-defined character to each new model we create. A Fulcrum character.

Selecting the best materials, working on details, focusing on technical solutions that make us an absolute benchmark. We want all this for ourselves, because these are the wheels on our bikes and these are what make us proud. From wheels for pro racing bikes through to those for mountain bikes, the Fulcrum range offers a wide, complete selection that meets the different needs of any kind of cyclist.
WEIGHTS SPECIFIED DO NOT INCLUDE QUICK-RELEASE AND ARE “AVERAGE WEIGHTS” THAT CAN VARY BY ± 5%.

FULCRUM WHEELS SRL RESERVES THE RIGHT TO MODIFY AT ANY TIME AND WITHOUT NOTICE THE TECHNICAL SPECIFICATIONS IN THIS CATALOGUE.
Since its beginning Fulcrum® has focused on producing the most performance oriented and resistant wheel available for off road use. This dedication to quality and durability has been applied to the off-road sector and as the disciplines in off-road continue to evolve and grow in numbers, Fulcrum® is now dedicated to finding solutions for each and every standard.

The new Fulcrum® off road line follows the mission of producing the best wheel for every discipline and every condition.
## MTB OVERVIEW

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<td><strong>RED PASSION™ 3 27,5”</strong></td>
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<td><strong>RED ZONE™ 5 29”</strong></td>
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<td><strong>RED ZONE™ 7 29”</strong></td>
<td><strong>RED FIRE™ 5 27.5”</strong></td>
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RED PASSION 29”

**TECHNOLOGIES**

**MILLED RIM / ASYMMETRIC-RIM / HIGH STRENGTH ALUMINUM / ANTI ROTATION SYSTEM™ / TUBELESS READY / PLASMA FREEHUB / ONE HUB FITS ALL / OVERSIZE AXLE™ / AFS™**

- Tyre Type: Tubeless ready (tape installed)
- Tyre Size: 29"
- Discipline: Cross country/Marathon
- Weight: 1398 g
- Rim material: Aluminum
- Rim material details: Aluminum, asymmetrical
- Profile height: /
- Rim height: Front and Rear 16 mm
- Rim width: 24 mm
- Inner rim width (channel): 21 mm
- Tyre Width: From 2.0” to 2.5”
- Braking system: Disc brake
- Braking surface/ Brakes Options: 6 bolts or AFS™
- Front axle compatibility: QR/HH15-100
- Rear Axle compatibility: QR/HH12-142/HH12-135/XD
- Front wheel spokes: 28, Left 14 - Right 14
- Rear wheel spokes: 28, Left 14 - Right 14
- Spokes: material: Stainless steel
- Spokes: profile technology: Rounded, straight pull
- Nipples: Aluminum
- Front Hub: Carbon, Aluminum flanges
- Rear Hub: Carbon, Aluminum flanges
- Bearings: Cup & Cone bearing system. Adjustable
- Others: Aluminum Axle
- Weight limit (cyclist): 90 kg
- FWB Version: HG11, XD
**TECHNOLOGIES**

**MILLED RIM / ASYMMETRIC-RIM / HIGH STRENGTH ALUMINUM / ANTI ROTATION SYSTEM™ / TUBELESS READY / PLASMA FREEHUB / ONE HUB FITS ALL / OVERSIZE AXLE™ / AFS™**

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<th>Feature</th>
<th>Specification</th>
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<tr>
<td>Discipline</td>
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<tr>
<td>Weight</td>
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<td>Rim material</td>
<td>Aluminum</td>
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<td>Rim material details</td>
<td>Aluminum, asymmetrical</td>
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<td>Front axle compatibility</td>
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<td>Front wheel spokes</td>
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<td>Nipples</td>
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<tr>
<td>Front Hub</td>
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<td>Bearings</td>
<td>Cup &amp; Cone bearing system, Adjustable</td>
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<td>Others</td>
<td>Aluminum Axle</td>
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<tr>
<td>Weight limit (cyclist)</td>
<td>90 kg</td>
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<tr>
<td>FWB Version</td>
<td>HG11, XD</td>
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</tbody>
</table>
MTB
FULCRUM WHEELS – 2018 DEALER BOOK

**Tyre Type**
Tubeless ready (Tape installed)

**Tyre Size**
29"

**Discipline**
Cross country / Marathon

**Weight**
1500 g / Boost 1535 g

**Rim material**
Aluminum

**Rim material details**
Aluminum, asymmetrical

**Profile height**
Front and Rear 16 mm

**Rim height**
24 mm

**Inner rim width (channel)**
21 mm

**Tyre Width**
From 2.0" to 2.5"

**Braking system**
Disc brake

**Braking surface/ Brakes Options**
6 bolts or AFS™

**Front axle compatibility**
QR/H15-100 + Boost

**Rear Axle compatibility**
QR/H12-142/H12-135/XD + Boost

**Front wheel spokes**
28, Left 14 - Right 14

**Rear wheel spokes**
28, Left 14 - Right 14

**Spokes: material**
Stainless steel

**Spokes: profile technology**
Rounded, straight pull

**Nipples**
Aluminum

**Front Hub**
Aluminum, Aluminum flanges

**Rear Hub**
Aluminum, Aluminum flanges

**Bearings**
Sealed cartridge bearings

**Others**
Aluminum Axle

**Weight limit (cyclist)**
90 kg

**FWB Version**
HG11, XD

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**TECHNOLOGIES**

MILLED RIM / ASYMMETRIC-RIM / HIGH STRENGTH ALUMINUM / ANTI ROTATION SYSTEM™ / TUBELESS READY / PLASMA FREEHUB / ONE HUB FITS ALL / OVERSIZE AXLE™ / AFS™

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**RED PASSION 3 29”**

TUBELESS READY
ULTRA LOW PROFILE
BOOST VERSION AVAILABLE

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FULCRUM WHEELS – 2018 DEALER BOOK
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<td>Rim material details</td>
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<tr>
<td>Braking surface/ Brakes Options</td>
<td>6 bolts or AFS™</td>
</tr>
</tbody>
</table>

**Front axle compatibility**
- QR/HI15-100 + Boost

**Rear Axle compatibility**
- QR/HI12-142/HI12-135 XD + Boost

**Front wheel spokes**
- 28, Left 14 - Right 14

**Rear wheel spokes**
- 28, Left 14 - Right 14

**Spokes: material**
- Stainless steel

**Spokes: profile technology**
- Rounded, straight pull

**Nipples**
- Aluminum

**Front Hub**
- Aluminum, Aluminum flanges

**Rear Hub**
- Aluminum, Aluminum flanges

**Bearings**
- Sealed cartridge bearings

**Others**
- Aluminum Axle

**Weight limit (cyclist)**
- 90 kg

**FWB Version**
- HG11, XD

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**TECHNOLOGIES**

- Milled Rim / Asymmetric Rim / High Strength Aluminum / Anti Rotation System™ / Tubeless Ready / Plasma Freehub / One Hub Fits All / Oversize Axle™ / AFS™

**TUBELESS READY**

**ULTRA LOW PROFILE**

**BOOST VERSION AVAILABLE**
**RED ZONE 5 29”**

**2-WAY FIT™ READY PROFILE**
**STRAIGHT PULL SPOKES**
**23C WIDE RIM**

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**TECHNOLOGIES**

**WIDE MTB RIM TECHNOLOGY / 2-WAY FIT™ READY / MONOBLOCK HUB FOR DISC / PLASMA FREEHUB / ONE HUB FITS ALL / AFS™**

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**Tyre Type**: 2-Way Fit™ Ready

**Tyre Size**: 29”

**Discipline**: Cross country / Marathon

**Weight**: 1800 g / 1815 g Boost

**Rim material**: Aluminum

**Rim material details**: Aluminum

**Profile height**: Front and Rear 20 mm

**Rim width**: 28,5 mm

**Inner rim width (channel)**: ETRTO 23C

**Tyre Width**: From 2.0” to 2.35”

**Braking system**: Disc brake

**Braking surface/ Brakes Options**: AFS™

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**Front axle compatibility**: QR/NW15-100 + Boost (no skewers incl.)

**Rear Axle compatibility**: QR/NW12-142/NW12-135/XD + Boost (no skew. incl.)

**Front wheel spokes**: 28, Left 14 – Right 14

**Rear wheel spokes**: 28, Left 14 – Right 14

**Spokes: material**: Stainless steel

**Spokes: profile technology**: Rounded, straight pull

**Nipples**: Aluminum

**Front Hub**: Aluminum, Aluminum flanges

**Rear Hub**: Aluminum, Aluminum flanges

**Bearings**: Sealed cartridge bearings

**Others**: “One hub fits all”

**Weight limit (cyclist)**: 109 kg

**FWB Version**: HG11, XD

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* Conversion Kit “2-Way Fit™ Ready” included
**RED ZONE 7 29”**

**NEW**

**TECHNOLOGIES**

**WIDE MTB RIM TECHNOLOGY / 2-WAY FIT™ READY / MONOBLOCK HUB FOR DISC / PLASMA FREEHUB / ONE HUB FITS ALL / AFS™**

- **Tyre Type**: 2-Way Fit™ Ready
- **Tyre Size**: 29" 
- **Discipline**: Cross country / Marathon
- **Weight**: 1860 g / 1875 g Boost
- **Rim material**: Aluminum
- **Rim material details**: Aluminum
- **Profile height**: / 
- **Rim height**: Front and Rear 20 mm 
- **Rim width**: 27.5 mm
- **Inner rim width (channel)**: ETRTO 23C
- **Tyre Width**: From 2.0” to 2.35”
- **Braking system**: Disc brake
- **Braking surface/ Brakes Options**: AFS™

- **Front axle compatibility**: QR/XH15-100 + Boost (no skewers incl.)
- **Rear Axle compatibility**: QR/XH12-142/12-135 XD + Boost (no skew incl.)
- **Front wheel spokes**: 28, Left 14 - Right 14
- **Rear wheel spokes**: 28, Left 14 - Right 14
- **Spokes: material**: Stainless steel
- **Spokes: profile technology**: Rounded, straight pull
- **Nipples**: Aluminum
- **Front Hub**: Aluminum, Aluminum flanges
- **Rear Hub**: Aluminum, Aluminum flanges
- **Bearings**: Sealed cartridge bearings
- **Others**: "One hub fits all"
- **Weight limit (cyclist)**: 109 kg
- **FWB Version**: HG11, XD

* Conversion Kit “2-Way Fit™ Ready” not included
**TECHNOLOGIES**

**WIDE MTB RIM TECHNOLOGY / 2-WAY FIT™ READY / MONOBLOCK HUB FOR DISC / PLASMA FREEHUB / ONE HUB FITS ALL / AFS™**

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<td>Tyre Size</td>
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<tr>
<td>Discipline</td>
<td>Trail / Enduro</td>
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<td>Weight</td>
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<tr>
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<tr>
<td>Rim height</td>
<td>Front and Rear 20 mm</td>
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<td>Rim width</td>
<td>32 mm</td>
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<td>Inner rim width (channel)</td>
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<tr>
<td>Tyre Width</td>
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<tr>
<td>Braking system</td>
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<table>
<thead>
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* Conversion Kit “2-Way Fit™ Ready” included
OUR R&D DEPARTMENT IS THE PRIDE AND JOY OF OUR COMPANY. INSIDE THIS UNIT, HIGHLY SOPHISTICATED PRODUCTS ARE DESIGNED, TESTED, AND DEVELOPED TO EMBODY THE FULCRUM® DNA.

INSIDE THE R&D DEPARTMENT THE OBJECTIVE IS TO CONTINUOUSLY INNOVATE IN ORDER TO IMPROVE THE CYCLING EXPERIENCE BY FINDING THE RIGHT BALANCE BETWEEN EQUALLY IMPORTANT FACTORS: PERFORMANCE, RELIABILITY, QUALITY, DESIGN AND SAFETY.
Full carbon Fulcrum® rims are built using combinations, developed in the laboratory, of different types of fibre, including UD and the famous 3K or “Longitudinal Twill” of models at the top of our range.
To build them we developed a special HTG (high transition grade) resin, whose glass transition point is at a higher temperature than any other fibre used in the bicycle industry. This gives incomparable performance when braking.
Fulcrum® carbon products are also recognisable for their sophisticated workmanship: The rims are moulded with ready-made nipple holes, so no further hole-making is needed. Nor is polishing necessary to give them an impeccable appearance or make them technically ready for mounting.
UNDRILED
CARBON RIM BED

No holes on the bridge connector means that the rim is uniform at every point, free from critical areas subject to stress. The advantages are immediately clear: less weight, longer lasting rims, greater resistance to fatigue, the possibility of giving the spokes more tension and more stiffness which, in terms of performance, means improved responsiveness and acceleration.
Fulcrum®’s R&D department, following requests from the competition circuit, has worked to create rims that are wider than before, about 4 mm or more than previously. This technical choice provides an ideal basis for 25/28mm tyres, the sizes currently popular.

This ensures stability, excellent handling and superior comfort. And everyone agrees that a more comfortable bicycle means less physical and mental fatigue, generating better performance and results.

The contact made by the wider tyre creates a better, more stable support, while the shape of the tyre and rim together creates regular, stable air flow, in short, more aerodynamics, less attrition.
What is MoMag™? A magnet and lots of genius. This was what led to the patent for the well-tested “Mounting Magnet” system, or MoMag™. How does it work? The nipples, once inserted inside the rim via the valve hole, are “guided” to the point of connection with the spoke by means of the magnet. This simple but ingenious system makes it possible to have a wheel without holes on the upper bridge, but with spokes tensioned by traditional nipples!

ADVANTAGES
A rim with no spoke holes on the tire side means that the rim is completely uniform and thus eliminating high stress areas or weaker points. It also eliminates the need for rim tape as the sharp edges of the spoke hole are no longer a threat. No rim tape also means less weight.

The advantages are immediately clear:
– Longer rim lifetime
– Greater resistance to fatigue
– The possibility to give the spokes greater tension
– Greater/higher stiffness

There are countless performance advantages associated with this technology but not to be overlooked are also the ease of maintenance and spoke replacement.
For years, the issue of braking on carbon rims has been studied and technically updated, in accordance with progress made in research into materials and available finishing processes. AC3™ is a further step forward in this direction and it will enable surprising braking performance, especially in difficult conditions, when improvements become the base for a different way of cycling.

The Fulcrum R&D division has chosen to change its approach to braking track production, going from a mechanical process to one that uses micro laser incisions on the surface to eliminate resins and perfect roughness. In this way, braking directly exploits the brake pad’s contact on the fiber, improving grip and dissipation of water and moisture from the surface, allowing it to work immediately in ideal conditions and give better results. Confidence and power grow, together with excellent modularity. Lab tests have shown that this greater force enables a 6% improvement in braking power in dry conditions compared to previously. In the wet, the difference is amazing: here there is a 43% increase, bringing braking distance close to those in dry conditions.

The cyclist can concentrate totally on choosing the best line, with no slip-ups, each hairpin a work of art.

Our engineers dedicate countless hours working on improving every last detail of our wheels and a large part of wheel performance is measured by its stopping distance. To maximize braking performance the Fulcrum® R&D department has developed internally brake pads made specifically for our carbon wheels. The special blend that resulted from seemingly unending rounds of testing increases brake performance on both dry and wet surfaces without increasing the wear and tear on the pad or the braking surface of the rim.
PLASMA ELECTROLYTIC OXIDATION

The Plasma Electrolytic Oxidation treatment is a process made thanks to electrical discharges that take advantage of heavy materials - free electrolytes. This process is an advanced oxidation process of light alloys of aluminum, magnesium and titanium. This special project was developed a few decades ago in the Russian laboratories to improve characteristics of the lightweight materials used in the field of space and military.

The Plasma Electrolytic Oxidation process gives the alloy surface very special characteristics regarding hardness and wear resistance.

This is possible thanks to a very fine and compact matrix of alpha and microcrystalline gamma alumina and amorphous alumina embedded on the surface. Wheels treated with Plasma Electrolytic Oxidations take a new really engaging total black look, also interesting for the excellent wear resistance thanks to the high hardness of the layer. Fulcrum® R&D department has chosen to use this treatment also on the aluminum braking surface, developing a new design created by turning that allows superior braking efficiency. Specified Brake pads should be used with this special finishing.
Fulcrum® is one of the first wheel manufacturers on the market to offer two completely different rim profiles from disc to conventional brake. So, no adaptation, but a rim conceived based on years of design experience.

Not requiring a braking track, Fulcrum®’s R&D department designed a completely new profile, aimed at saving every single gram of weight and at improving aerodynamic efficiency. Its greater width makes it a perfect fit for tyres of 25/28mm upwards.
This aluminium rim has an asymmetric, machined profile to keep peripheral weight to a minimum, making the wheel extremely responsive on relaunches. This specific shape also guarantees excellent shock resistance. The asymmetry is designed to improve rim tension, balancing the forces from brakes and sprocket cassette.

**RIM DYNAMIC BALANCE™**

**DYNAMIC BALANCE™ ALUMINIUM RIMS**
The concept is simple and elegant: balance the weight of the gasket, with an item of similar weight placed on the exact opposite side. For top models, this is obtained by a special operation on the section of the rim opposite the rim joint. For entry-level models, Dynamic Balance™ is obtained by using two oversized spokes in the section opposite the joint. The result is a wheel with perfectly balanced rotational dynamics.

**RIM DYNAMIC BALANCE™ CARBON WHEELS**
For carbon wheels the principle is the same, but applied using a different technology. When making carbon rims, the pieces of carbon fabric are aligned in such a manner that the resulting rim is always balanced.
This new system raises the concept of spoking to new heights of performance. The Fulcrum® engineers have redesigned the spokes and the hub housings to create a solid and firm assembly. The result is such the spokes:

a) will never lose their initial tension, thus keeping the wheel perfectly reactive and centred
b) will remain in the position that was found in wind tunnel tests to ensure the best aerodynamic penetration possible.

Exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas. The nipple base is optimised to prevent spoke tensile force from directly impacting the carbon fibre. This force is instead transferred to a special polymer insert, which is also self-locking, thereby requiring less frequent maintenance and drastically reducing stress on the rim.
For the new Racing Zero’s aluminium rim, we decided to keep the triple-milled structure throughout the profile to minimise aluminium thicknesses. Next, our technicians added 3D milling at the base of the spokes. This means less material but the same reliability since, in this particular design, the forces are well distributed over the rim.

Triple and “Square” milling enable maximum weight reduction on the rim periphery, producing an extremely responsive wheel.

Special aluminium - the best aluminium wheels require carefully chosen materials. For Racing Zero, Fulcrum® R&D uses only the best aluminium alloy 6082, with artificial ageing T6 temper that stabilises the alloy and gives it maximum life and reliability. Aluminium 6082 has the highest strength of the 6000 series and has replaced 6061 in many applications. It is generally used for high-stress applications.
DIFFERENTIATED RIM HEIGHT

Two different heights for front and back. A bigger challenge in construction, but necessary to achieve the very best. The lower front wheel improves handling, limiting weight to a maximum and also mass involved when turning and relaunching. The rear rim is higher and more solid, to transmit all the power to the wheel and increase stability.
Tubeless technology was first used by the auto industry, then by motorcycles and now has reached the cycling industry. After its debut with mountain bikes the moment has come to “put it on the road”, and that’s what we propose to do. We have developed our 2-Way Fit™ technology to ensure the perfect compatibility of our tubeless rims with normal clincher types and tubes.

2-Way Fit™ wheels are perfectly multipurpose for tackling every situation. Thanks to a special impression in the valve area, the tubes are fitted with the maximum precision while keeping the tube perfectly stable inside the tyre. Housing the valve for tubeless tyres is also risk-free, with the unquestionable advantage that there are never any air infiltrations caused by non-ideal positioning when fitting.

The advantages are indisputable: our tests have highlighted an unique increase in smoothness. Because there is no tube, the friction caused by rubbing against the tyre is eliminated, while the perfect adherence of the tyre to the rim prevents the dispersion of energy. Tubeless tyres do not suffer from sudden deflation when punctured which is a great advantage in safety terms.

There is also no risk of snake bites as there is no tube to rupture. You may ask, “what do I do if I get a flat with a tubeless tire?” Not to worry! With Fulcrum® 2-Way Fit™ you must simply remove the tubeless valve and use a standard inner tube to get you back home.

2-WAY FIT™ PROFILE FOR TUBELESS AND CLINCHER

The evolution of tubeless in a rim for racing or mountain bikes. Our profile ensures perfect compatibility with tubeless-ready tires after quick easy transformation.

We have combined the advantages of tires without inner tubes, lower rolling resistance and better ground grip on bends—in other words, improved steering, true response and increased comfort.

The transformation calls for tape and tubeless valves, and a sealant must be used.

For more info:
www.fulcrumwheels.com/2-way-fit-ready

TUBELESS READY SOLUTION
Tubeless, over time, has become the solution of choice for high-end MTB wheelsets, because it guarantees better rideability and protection against punctures. Fulcrum’s “Tubeless Ready” products are ready for this changeover, with tape already in place. The specially formed and reinforced bead fits more easily to the tyre, for simple, safe changeover.
There are wheels and there are wheels made with CULT™ technology. Wheels will get you to where you are going with varying levels of fatigue depending on the make and model. Wheels made with CULT™ technology will get you to the finish line faster, with less fatigue and will last considerably longer. Those looking for the fastest, most efficient and durable wheels need look no further as they may simply choose the technology that even the best pro-tour riders have come to demand: CULT™.

You can rest assured that if your wheels are made with CULT™ technology you are sitting on the fastest and most efficient wheels available. So superior is the CULT™ bearing technology that laboratory tests prove that hubs equipped with CULT™ technology run 9 times longer than standard bearings. Other tests involve spinning the wheel equipped with CULT™ technology at 500RPM and then allowing it to decelerate. The CULT™ equipped wheel continues to spin for a full 45 minutes.

Being able to roll as friction free as possible is of utmost importance as it is one key element in reducing fatigue and increasing efficiency. In other words, smoother and more efficient bearings allow you to ride faster using less energy. CULT™ technology allows the rider to spend less energy on overcoming friction and enabling him or her to be fresher at critical points in the race. At similar power output, CULT™ bearings allow the rider to maintain higher average speeds, thus translating into crucial time savings.

CERAMIC ULTIMATE LEVEL TECHNOLOGY™

With CULT™ technology rotation for 45 min
Fulcrum® has a long-standing reputation for the extremely high performance of its hubs in terms of smoothness and reliability. In fact, we develop each and every hub in house and place obsessive care into the most minute detail. With this work ethic and attention to detail in mind we choose to employ USB™ ceramic bearings to further reduce our wheels’ rolling resistance, weight and need for maintenance.

Comparative tests have shown that USB™ bearings are 50% smoother than standard bearings. Now improving your performance during the race or simply going for a ride with your friends will be easier.
CUP & CONE

The cup-and-cone bearing differs from the classic cartridge bearing because it works in perfect alignment with the forces involved, weight and thrust from the frame, as the bearings run in a race positioned directly opposing these forces. The adjusting ring lets you pre-load the bearing, so you can eliminate side-to-side play and have optimum adjustment once the wheel is mounted on the frame.

2:1 TWO-TO-ONE™ SPOKE RATIO

When you push on the pedals, the rotational force on the sprocket induces a slackening of the freewheel spokes with a consequent loss of rim tension. This results in undesirable flex of the whole wheel and an unavoidable loss of energy. Fulcrum® has solved this classic cycling problem with its 2:1 Two-to-One™ Spoke Ratio patent, by doubling the spokes in the critical zones. As a result there are two spokes which carry out the function of one, slackening and torsion are limited and the transfer of the athlete’s power is much more effective. Also, thanks to this system, spoke tensions are balanced more evenly between drive and non-drive sides and the fatigue life of the rim, hub and spokes is lengthened.
On braking, the front wheel must deal with torques directed towards the rim, thence to the ground, in the best possible way. This means that the hub and the spokes must be ready to carry out two main tasks: to transmit the strongest possible braking force directly to the ground and to balance torque coming from the disc on the axis. The Oversize Flange improves spoke dishing. Along with the double spokes on the disc side, this allows the system to reach an optimum torque level, enabling optimum transmission of power to the ground.

The 2:1 Two-to-one™ system also reduces the load on each spoke, decreasing the stress they undergo while racing. This unique solution keeps radial spoking on one side (for the front wheel, the side opposite the disc). No loss of stiffness, but a considerable saving in weight.

The rear hub of a top-quality disc brake wheel is a technical problem to be solved. Fulcrum®’s R&D department found itself facing a fundamental choice: on which side to put the oversize flange of the Two-to-one™ system? Disc or sprocket side? Without question - must stay on the sprocket side.

To combat the loss of braking power from flex and torque of the connector between the two sides of the hub, a special one-piece system has been devised with internal stiffening ribs. The end result is maximum torque transmission while pedalling and forces coming from the disc on the opposite side when braking. In this way the system works both accelerating and braking, when spokes that are more numerous and with more dishing are involved. At the same time, the other side confirms the spokes’ radial layout, saving precious weight.
The Oversize Flange was developed from the need to create a system to transmit every watt to the ground without dispersion, stiffening the wheel system where necessary, without having to add spokes or superstructures that increase weight. The oversize flange uses physics to solve the problem. It increases dishing and enables spokes to be shortened. Doubling the spokes creates a balanced system that is excellent at transmitting torque.

In line with their aim to save every possible gram of weight and to choose the most advanced technological solutions, the R&D department has developed a seamless carbon hub. The fibre selected is woven at 90 degrees, for enhanced balance of torque when pedalling.
The Plasma treatment makes the aluminium especially hard and resistant to surface abrasion and wear. This has allowed thickness of materials to be reduced to a minimum, achieving advantages of lighter weight, while maintaining lifespan and reliability.
The Axial Fixing System™ is the solution developed by Fulcrum® to fix the disc brake to the hub. The constraint granted by the butt area of the release mechanism, greater than in familiar standard ones, makes it possible to obtain greater structural rigidity and therefore more precise and powerful braking. The availability of the International Standard option ensures full compatibility of Fulcrum® wheels even with the most widespread braking systems that use this assembly plan.

The hubs designed for Fulcrum® wheels employ a generously dimensioned design for both the central body and for the rotation axis. The diameter of the latter, 20 mm for all the models with disc brakes, guarantees high resistance to transverse and torsional stresses. A contribution is also made to this result by the mechanical architecture of the hub which, in the AFS™ version, is provided with bearings with a double ball-bearing race positioned outside the flange, so that it is aligned with the disc on the respective side.
ONE HUB
FIT ALL

A solution that allows the wheels to adapt to different standards on the market in a fast and simple way. Different adapters can be fitted in a few easy steps to allow the wheel to be fitted to any frame standard.
Since its inception Fulcrum® has been dedicated to researching, developing, designing, testing, producing and perfecting wheels that live up to the prestigious red “F” that symbolizes the quality standard required of all products that leave our factory. With an extensive R&D department, Fulcrum® takes pride in producing the most advanced, reliable and highest performing products possible.

The studies and development behind all of our products is extensive in order to ensure the maximum in performance and product integrity. To guarantee the same quality and performance in each and every product that leaves the factory a meticulous quality control system has been put in place. Every single product must undergo a series of intense and strict testing at every stage in the production process as well as a post production test in order to confirm that every wheel, spoke and quick release is in line with our stringent quality standards.

Read more on: www.fulcrumwheels.com

Fulcrum® carbon fibre wheels are among the most highly sought-after components of their kind in the racing cycle world, and this inevitably attracts the attention of counterfeiters. To defend its image and quality, and to protect the end customer, Fulcrum® applies a hologram decal to every wheel in its Racing Speed range to certify that it is an original Fulcrum® product. Demanding proof that you have purchased an original Fulcrum® product is your right as a consumer, and also offers the peace of mind of knowing that you can make full use of the superlative performance these wheels were designed to deliver. Proof of originality also certifies that the wheel was built to Fulcrum®'s stringent standards and has passed all of our quality control tests. Please note that the manufacturer's guarantee and all the support services offered are only valid for original products. One key factor behind Fulcrum® quality is the fact that each and every product that bears our name and leaves the factory is completely traceable.

The traceability program gives advantages all around. First and foremost to our consumers as it proves to them that they have acquired an original product. Secondly it is also a quality control measure for after-sale issues. Should you have any problem whatsoever with your wheel Fulcrum® can immediately identify the exact time at which any given product was produced in order to take measures to rectify any problem that may emerge. Fulcrum® demands absolute perfection in order to pass it along to cycling consumers.
FULCRUM® AND CERTILOGO® AGAINST COUNTERFEITING: A TANGIBLE ANSWER THAT PROTECTS OUR CLIENTS’ SAFETY AND PURCHASES.

Top-end Fulcrum® wheels are considered by the market and by aficionados to be reference products and as such are highly desirable. They have therefore also become appetizing to counterfeiters who have cloned some of our models (especially those in carbon fiber) releasing considerable numbers onto the international markets.

The wheel is a performance product, but also a safety component. This aspect means that those who purchase a fake product, while saving money on something that clearly costs much less than the going market price, puts their personal safety at great risk. The materials and production processes that together help to achieve a safe performing product are obviously not the same.

With the aim of fighting and combating these counterfeiters, Fulcrum® is the first in the cycling sector to have put in place, thanks to the support of Certilogo®, a control system that enables our clients to authenticate the product simply and immediately.

Starting with the products in the 2015 catalogue, each pair of Fulcrum® wheels in the SPEED and RACING SPEED lines (see details) comes with an individual ID code (the Certilogo® Code or CLG Code) on a swing tag attached to a spoke on the wheel.

The tag will comprise a Certilogo® Code (in both numerical and QR code) that allows anyone, before or after purchase to check that the product is authentic. To authenticate Fulcrum® wheels, just visit www.certilogo.com, insert the CLG Code given on the tag or download the Certilogo APP free from Apple Store.

The tag will also have a Security Code covered by a silver stripe (technology similar to that used on mobile top-up cards). In certain circumstances, the end user (and only the end user) may be required to enter this code by Certilogo®. This countercheck may be useful, for example, in the case of online sales (when the client has no guarantee that the product viewed is the same one supplied). We suggest you keep the Fulcrum® Original Wheels tag even after product authentication for possible future use and, if necessary, to confirm ownership of the product.
DEALER LOCATOR

To find out our worldwide sales and service centers list, click on “Stores” section on WWW.FULCRUMWHEELS.COM
Graphic Design:
Mauro Tittoto

Photography:
Foto Factory, O-NEV,
Tim de Waele (TDWSport),
Basque MTB, CKN/IMAZE,
Egelmair Fotografie,
Sam Clark, Tornanti.cc,
Luca Zanon

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