# 2013 ROAD | CYCLOCROSS | OFF-ROAD





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TECH DATA





ТЕАМ	BRAND	NATION
LAMPRE – ISD	WILIER	ITALY
COLNAGO - CFS	COLNAGO	IRELAND
BIANCHI-ANDRONI GIOCATTOLI	BIANCHI	ITALY

# ROAD

Every enthusiast will be able to find the wheel that is best suited for his or her characteristics.

A wide range which, in addition to traditional wheels with profile in aluminium and the super performance wheels in carbon fibre, provides a wide selection of Red Wind<sup>™</sup> aerodynamic wheels in aluminium and carbon fibre, perfect for those enthusiasts who are looking for extremely high performance and an aggressive look.

But Fulcrum<sup>®</sup> is not just wheels. To complete a bicycle with exclusive technology and to demand maximum performance, **Fulcrum<sup>®</sup> also offers 10 speed RRS and RS carbon cranksets.** 

Discover their characteristics.







# WHEELS

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# S.H.A.R.C.

No two wheels are alike, and no two riders.

This is why Fulcrum<sup>®</sup>, in collaboration with professional racers as well as amateur enthusiasts, has identified and developed the five most significant indicators that will allow you to choose the best wheel for your riding style and your needs.

#### **Smoothness**

This indicator helps you understand the degree of smoothness of one wheel with respect to another thanks, for example, to the use of high performance the CULT<sup>™</sup> ceramic ball bearings, or the USB<sup>™</sup> ceramic ball bearings, or thanks to other technologies applied to the wheel such as 2-Way Fit<sup>™</sup>.

#### Handling

This is the agility and reactivity of the wheel in changing direction at a given impulse on the part of the rider. This indicator depends on the geometry of the spokes and of the hub, and on the cross-section of the rim, the materials used, and the type of tire.

#### Aerodynamic

Indicates the performance features of the wheel in terms of its propensity to penetrate the air. This factor depends on the height and profile of the rim, the section and form of the spokes, and the degrees of camber of the wheel.

#### Reactivity

How "ready" and quick is the wheel in response to your change of pace on the pedals?

The reactivity index of the wheel refers precisely to this concept. Reactivity depends on the weight of the rim and of the wheel in its entirety, on the torsional stiffness (i.e. how much the wheel deforms around the hub at the moment

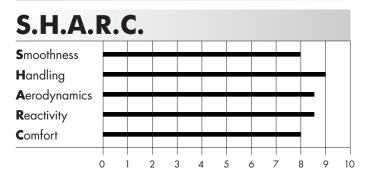
in which the cyclist pushes on the pedals), the flexional stiffness (i.e. the extent to which the wheel maintains its shape along its axis when it is shifted, due to the push on the pedal, from the vertical axis), and on inertia.

#### Comfort

Do you prefer a wheel that can absorb the ruggedness of the terrain or an absolutely rigid wheel with no compromise? It depends on your driving style and your particular needs. The comfort index aims to help you to understand the behaviour of the wheel in the case of roads that are not perfectly smooth, and in any case to help you understand the extent to which the wheel transmits the vibrations of your bike.

Fulcrum<sup>®</sup> provides you with all the technical information, but now it's up to you to decide which is the perfect wheel for your needs! Your passion, your way of riding your bike, and your feeling will enable you to make the best choice.

	DOTHNESS	ADLING	ODYNAMICS	СТІVITY	AFORT
	SMC	HA	AER	REA	S
2-Way Fit™ WHEELS					••••••
RACING ZERO	9	9	8,5	9	8
RACING 1	8	9	8,5	8,5	8
RACING 3	8	9	8,5	8	8,5
CLINCHER/TUBULAR W	HEELS				
RACING ZERO	9	9	8,5	9	8
RACING 1	8	9	8,5	8,5	8
RACING 3	8	9	8,5	8	8.5
RACING QUATTRO	8,5	8,5	9	8	8,5
RACING 5	7,5	8,5	8,5	7,5	9
RACING 7	7,5	8	8,5	7,5	9
RACING CHRONO™	10	7	10	7,5	6,5
ALU/CARBON WHEELS					
RED WIND™ XLR	10	8	9	7,5	8
RED WIND™ XLR 80 mm	10	7	9,5	6,5	8
RED WIND™ XLR 105 mm	10	6	10	6	7
RED WIND™	8,5	8	9	7,5	8
RED WIND™ 80 mm	8,5	7	9,5	6,5	8
CARBON WHEELS					
RACING LIGHT™ XLR	10	10	6	10	9
RACING SPEED™ XLR	10	9	9	10	9
RACING SPEED™ XLR 80	10	7	10	9	8
RACING SPEED™	8,5	9	9	9,5	9



# F.I.C FULCRUM® IDENTIFICATION CARD

Right from its inception Fulcrum<sup>®</sup> has been marked by feature that continues to this day: that is to design, prototype and industrialise all the wheels characterised by the red "F".

Indeed these take shape inside of the R&D, the leading-edge department that represents the beating heart of the Italian company. Every single component of the wheel, the materials chosen and the technologies applied are the tangible result of the effort that Fulcrum® makes every day to give you maximum performance and reliability. To ensure the top performance and reliability of its products, each project, for the production stage, must undergo a series of very strict tests that validate what has been conceived and designed up to that moment.

# **Fatigue test**

before the manufacturing stage, each wheel and each of its components are subjected to long and very challenging tests that ensure the durability and performance over time.

# **Crash Test**

it simulates the impact of the wheels with possible obstacles. The Fulcrum® tests have successfully passed the tests required by UCI standards.

#### **Enviroment Test**

exposure to UVA and UVB rays, salt attack and exposure to moisture: these are the tests that all Fulcrum® wheels must pass to ensure maximum performance and reliability over time.



## 100% Manually assembled and Electronically checked

The pre-emptive tests mentioned above may be sufficient. But not for Fulcrum<sup>®</sup> who wants to ensure the highest quality of each individual wheel, checking the parameters at the end of the production process.

This is why Fulcrum<sup>®</sup> made a clear and conscious choice: to assemble each wheel manually and submit it to a series of final checks that guarantee their quality.

This is the only way, thanks to the entirely manual assembly by trained and specialised personnel and the final 100% checks carried out by specially designed electronic instruments, it is possible to ensure the quality of the wheel you have purchased.

- **Balancing:** it guarantees the absence of vibrations at fast speed.
- Lateral and radial control: it guarantees the perfect alignment of the wheel to ensure rolling of the wheel.
- Camber: it ensures the perfect symmetry of the wheels with the bicycle.
- **Spokes tension:** it ensures optimal balance at every point of the wheel.
- **Rolling torque of the hub:** it insures a perfect adjustment of the hubs.

This is why, from its 2012 range, Fulcrum<sup>®</sup> wanted to supply each wheel with its own Identity Card (ID) which uniquely identifies the wheel and certifies that it has been manually assembled and has passed all tests required by the strict quality protocol.



# **ALLUMINIUM/CARBON Project**

Not all aluminium/carbon wheels are identical. Even for this range of wheels Fulcrum<sup>®</sup> demanded top performance levels, pursuing clearly challenging project targets.

Maximum technology has also been applied to this new range of wheels. Fulcrum<sup>®</sup> has indeed designed these wheels by setting 4 clear objectives to be able to achieve maximum performance and reliability:

- High responsiveness levels
- Outstanding smoothness performance
- Aerodynamics designed and optimised to minimise the coefficient of air penetration and, at the same time, make the wheel easy to handle and safe even with cross winds.
- An extremely competitive weight for this category of wheels.

The Fulcrum<sup>®</sup> R&D has once again successfully reached the objectives set.

#### RESPONSIVENESS

The aluminium/carbon wheels have been manufactured with technical details that make them incredibly responsive to a cyclist's change in pace:

- **Oversize Flange:** the size of right flange of the rear wheel has been designed in order to maximise the transmission of power to the wheel and to increase the tensional rigidity and overall responsiveness of the wheel.

- **Special spoking:** the double spokes on the right side of the rear wheel and the exclusive spoking system by Fulcrum® allow to increase the lateral stiffness of the wheel, thus increasing the energy transferred from the cyclist to the wheel. This system, also reduces the stress of the spokes on the sprocket set side and keeps the wheel steady and balanced even at fast speed or in the case of heavier cyclists.

- **Straight-head spokes:** they increase the responsiveness of the wheel thanks to the possibility to set high values for the tension of the spokes, by also maintaining these high tensions over time.

- **DRSC<sup>™</sup>** Technology: the Directional Rim-Spoke Coupling system allows to obtain a perfect alignment for the rim, nipples, spokes and hub. This allows to eliminate any tensions between the components and to obtain high spoke tension values. In terms of performance, this means greater responsiveness and maintaining these values over time.



# WHEELS

#### **SMOOTHNESS**

The Fulcrum<sup>®</sup> wheels have always distinguished themselves for being extremely smooth. The Red Wind<sup>™</sup> wheels retain this property thanks to the leading-edge technology of the materials used and the technical solutions that the Fulcrum<sup>®</sup> R&D is able to design.

- **CULT™ technology:** 9 times smoother compared to traditional bearings thanks to the special steel treatment of the cup/cone (CRONITECT<sup>®</sup> technology developed by Schoeffler) and thanks to the best ceramic balls available on the bicycle market. This technology allows to avoid lubricating grease, which is replaced exclusively by a film of oil and also allows to maintain performance over time thanks to the absence of corrosion.

- **USB™ technology:** using the best ceramic bearings allows to reduce friction, increase smoothness and maintain performance over time.

- Exclusive bearing adjustment system: the system designed by Fulcrum® to adjust the bearings allows for easy and immediate maintenance; it also allows the races/ bearings to always maintain the correct position, eliminating possible clearance between the components in friction.

- **Cone/cup system:** there is always an optimal angle of contact between the balls and the cup/cone. As well as increasing smoothness, this also maintains performance over time.

# WEIGHT

Although these are wheels dedicated to fast competitions and time trial, Fulcrum<sup>®</sup> did not want to compromise on performance. In this case its long-standing experience in terms of wheels and carbon fibre components, was extremely useful to develop the new aluminium/carbon wheels.

The result is definitely significant and positions the highprofile wheels amongst the best in terms of weight. This result was made possible thanks to the moulding technology of the rim, which requires no priming and allows to reduce the weight of the carbon profile to a minimum. The hub to has been designed to minimise weight and, in the XLR version, has been lightened thanks to the use of

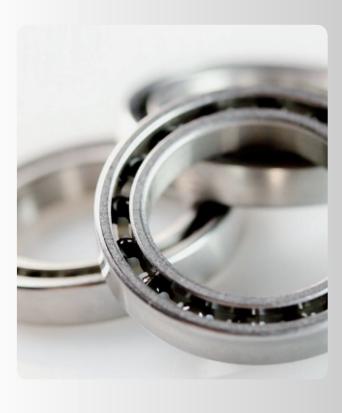
#### AERODYNAMICS

aluminium.

Not just maximum aerodynamic penetration, but also manoeuvrability in the presence of cross winds.

- The profile of the rim has been conceived and designed in collaboration with the top Triathlon and Time Trial athletes and optimised thanks to computerised simulation research. Aerodynamics has been optimised thanks to the aerodynamic profile of the rim, especially where the spokes are attached, their aerodynamic profile and their position with respect to the rim.

This all led to the goal of making the wheel extremely aerodynamic in any situation. But for Fulcrum<sup>®</sup> this is not enough. The Red Wind<sup>™</sup> wheels have been designed to be easy to handle and safe even with cross winds. Thanks to simulations it was possible to understand which areas had more interference in the case of cross winds. To reduce these negative effects to a minimum, the design of the rim, the spokes and the hub have been done to minimise interference making the high-profile wheels adequate to any situation.





# 2-Way Fit<sup>™</sup>

# 2-Way Fit™ profile for tubeless and clincher

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<sup>™</sup> technology to ensure the perfect compatibility of our tubeless rims with normal clincher types and tubes. 2-Way Fit<sup>™</sup> 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. What if a tubeless tyre gets punctured? There's nothing to fear...With Fulcrum<sup>®</sup> 2-Way Fit<sup>™</sup> you can remove the tubeless valve and fit in a standard clincher tire that will let you ride back home.





# WHEELS

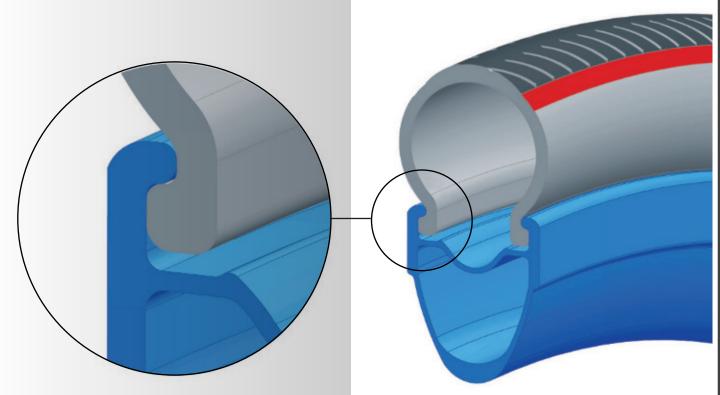
# Ultra-Fit<sup>™</sup>

#### Ultra Fit™ Tubeless

Here's the interface between the tubeless tyre and the rim. The form we have studied for our rims with Ultra-Fit™ Tubeless technology means that the sides of the tyre mate perfectly with the shoulders of the rim when it is fitted. The result is exceptionally smooth: for whizzing speedily without tubes!

By eliminating every possible movement between the rim and tubeless tyres, all energy dispersion is also eliminated. The Ultra-Fit<sup>™</sup> Tubeless wheels well exceed any other wheel fitted with traditional tyres in our tests. The first installing of the tyre is also made with great ease: two special tracks on the rim groove keep the tyre perfectly in position.





The exclusive shape of the rim was developed in the Fulcrum® Research & Development department. The rim profile coincides exactly with the negative of the tubeless profile.

Thanks to this feature, rims with the Ultra Fit<sup>™</sup> profile have some important advantages:

- Less friction between rim and tubeless tyre
- Lower roll resistance
- Easy mounting of the tubeless tyre
- Maximum safety in case of flat tyre

# MoMag<sup>™</sup>

# **Mounting Magnet**

What is MoMag<sup>™</sup>? A magnet and lots of ingenuity.

This was what led to the patent for the well-tested "Mounting Magnet" system, or MoMag<sup>™</sup>. 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!

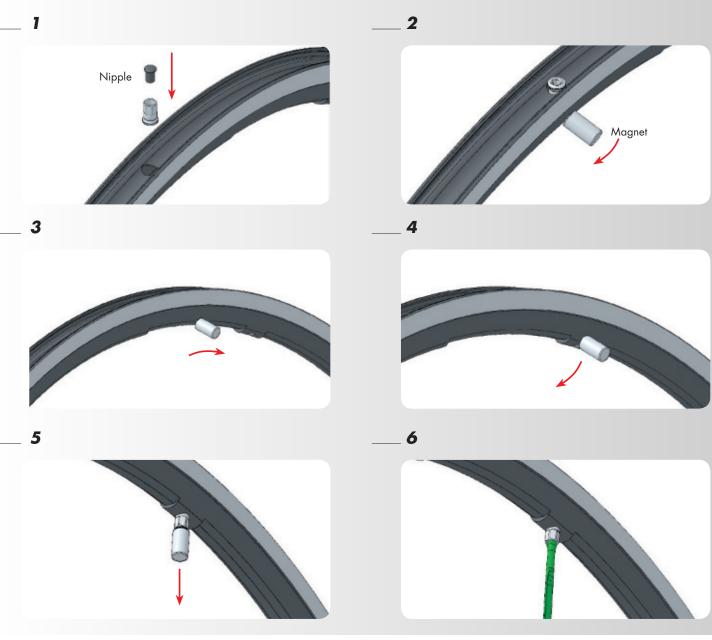
#### **Advantages**

No holes on the rim means that the rim is uniform at every point, free from stress points or zones of weakness and, for the clincher profiles no rim tape is required, to the benefit of weight reduction.

The advantages are immediately clear

- greater rim lifetime
- greater resistance to fatigue
- the possibility to give the spokes greater tension
- greater stiffness

In terms of performance, mean greater reactivity and acceleration. But that's not all. The advantages also include extremely quick and simple maintenance and spoke replacement. All to the benefit of cyclists who choose Fulcrum<sup>®</sup>.



# **RDB<sup>™</sup> 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.

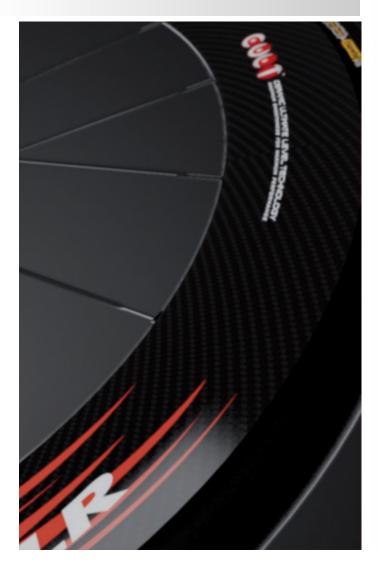
For entry-level models, Dynamic Balance<sup>™</sup> is obtained by using two oversized spokes in the section opposite the joint. The result is a wheel with perfectly balanced rotational dynamics.



The weight of the rim joint is balanced at the opposed end by the unfilled valve seat. The weight is thereby balanced and the rim is stable and balanced even at high speeds.

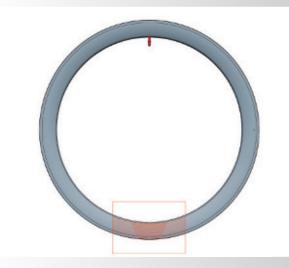
# **RIM Dynamic Balance™ Carbon Wheels**

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.





The principle is always the same: balance the weight at every point of the rim. In this case the rim joint is balanced by 2 spokes with a different weight than the rest.

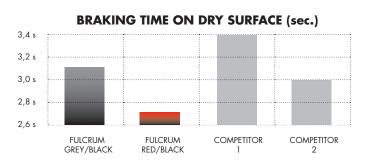


Thanks to a particular study on the positioning of the carbon skins, the rim is balanced at every point.

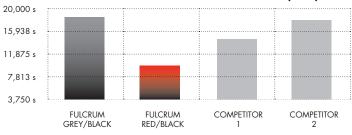


New brake pads made especially for carbon wheels: the new blend increases the brake performance on both dry and wet surfaces without increasing the wear and tear on the pad. For a more modular and more secure stop.





BRAKING TIME ON WET SURFACE (sec.)



# **Anti Rotation System**

This new system raises the concept of spoking to new heights of performance.

The Fulcrum<sup>®</sup> engineers have redesigned the spokes and the hub housings to create a solid and unmoveable whole. The result is that the spokes

**a)** will never lose their initial tension, thus keeping the wheel perfectly reactive and centred, and

**b**) will remain in the position that was found in wind tunnel tests to ensure the best aerodynamic penetration possible.



# TECHNOLOGIES

# WHEELS

ROAD

# 2:1 Two-to-One<sup>™</sup> 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<sup>®</sup> has solved this classic cycling problem with its 2:1 Two-to-One<sup>™</sup> 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.

OKE RATIO

# **CULT**<sup>™</sup>

#### Ceramic Ultimate Level Technology™

Behind this project is the exclusiveness of Cronitect<sup>®</sup> steel; using "Advanced by FAG" technology by Schaeffler Group employed for the bearing races.

This is steel which takes resistance to corrosion to the highest level; to the point that, no grease is necessary for lubrication, just a small amount of oil.

The top quality ceramic balls, thanks to the absence of lubricating grease and the precision machining of the cup/ cone, allow to drastically reduce the friction coefficient and thus increase the smoothness of the wheel by as much as 9 times compared to standard bearings.

An outstanding result achieved by using cutting-edge technologies in the field of materials processing.

The test performed involves spinning the wheel to 500 rpms then letting it decelerate. The test results are amazing: the wheel equipped with CULT<sup>™</sup> ball bearings continues its motion for a full 45 minutes, i.e. nine times longer than standard bearings.

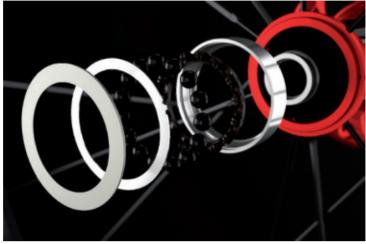
CULT<sup>™</sup> is on Racing Light<sup>™</sup> XLR, Racing Speed<sup>™</sup> XLR, Racing Chrono<sup>™</sup>, Red Wind<sup>™</sup> XLR, Red Wind<sup>™</sup> XLR 80mm and Red Wind<sup>™</sup> XLR 105mm.





CERAMIC ULTIMATE LEVEL TECHNOLOGY





# **USB**<sup>™</sup>

# Ultra Smooth Bearings™

Fulcrum<sup>®</sup> has a long-standing reputation for the extremely high performance of its hubs in terms of smoothness and reliability.

In fact, all the projects are entirely developed in our R&D department and we have put obsessive care into taking care of every detail.

The hubs with USB™ ceramic bearings (Ultra Smooth Bearings) further enhance the wheels' smoothness and reduce weight and the need for maintenance.

Comparative tests have shown that USB<sup>™</sup> 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.







ROAD

# **Quick Release**

#### What is the Fulcrum<sup>®</sup> Quick Release?

The Fulcrum<sup>®</sup> Quick Release is not simply a wheel locking/ release system. First and foremost, it is the component that guarantees the cyclist's safety, especially at high speeds, such as in road races. The Fulcrum<sup>®</sup> Quick Release project started with a very clear objective:

the maximum performance in terms of easy assembly/ disassembly, weight, smoothness of the wheel, but without compromising safety in any way.

The patented Fulcrum<sup>®</sup> mechanism is the one that best meets these needs. The lever is positioned centrally with respect to the axis of the hub axle, i.e. in the best position to put both ends of the axle in traction without differences in load between the sides.

The axle is in the form of a cam and applies the closure traction on the axis of the quick release.

#### **Advantages**

Thanks to the cam axle closure, it is simple and intuitive to understand the force to be applied for correctly closing the quick release and, even more importantly, the cam creates a mechanical impediment to the opening of the release, making it extremely safe during road use.

The fork positioned symmetrically with respect to the sides of the lever and centrally with respect to the axis of the skewer, enables an even distribution of the loads and forces

at each point of the skewer, thus avoiding critical breakage points and at the same perfect closure the fork of the frame and the wheel.

The symmetry of the lever and the special shape of the cam make locking and releasing the Fulcrum® wheel extremely easy, fluid, and safe.

The new aerodynamic form, moreover, considerably improves the aerodynamic coefficient of the range of wheels dedicated to time trial disciplines.

				CONSERVACE OF
	Gow			O.tot
2-Way Fit™ WHEELS	i.	<del>.</del>		<u>.</u>
RACING ZERO			•	
RACING 1			•	
RACING 3			•	
CLINCHER/TUBULAR WHEELS				
RACING ZERO			•	
RACING 1			•	2 · · · · · · · · · · · · · · · · · · ·
RACING 3		•		
RACING QUATTRO		•		
RACING 5	•			
RACING 7	•			
RACING CHRONO™				•
ALU/CARBON WHEELS		·		
RED WIND™ XLR				•
RED WIND™ XLR 80 mm				•
RED WIND™ XLR 105 mm				•
RED WIND™		•		
RED WIND™ 80 mm		•		
CARBON WHEELS				
RACING LIGHT™ XLR				•
RACING SPEED™ XLR				•
RACING SPEED™ XLR 80				•
RACING SPEED™				•

# ROAD

# Traceability

# A guarantee of quality

The keyword for our products is: traceability.

If you find a little label affixed to Fulcrum<sup>®</sup> products, don't remove it. This is because it is there to provide you with a guarantee that in the event of the ascertained defectiveness of a production batch your component or wheel will be traceable.

All this because, faithful to its mission, Fulcrum<sup>®</sup> demands absolute **perfection and safety** for its customers.



# Hologram

Fulcrum<sup>®</sup> 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.

From this year on, to defend its image and quality, and to protect the end customer, Fulcrum<sup>®</sup> applies a hologram decal to every wheel in its Racing Speed range to certify that it is an original Fulcrum<sup>®</sup> product.

Demanding proof that you have purchased an original Fulcrum<sup>®</sup> 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.







# ALUMINIUM

RACING ZERO	28
RACING 1	30
RACING 3	32
RACING QUATTRO	34
RACING 5	36
RACING 7	38

# **RACING ZERO**

8% more reactive! The new Oversize flange revolutionises the performance of what was already the class-beating aluminium wheel and raises the bar even higher. Greater overall stiffness and more efficient torque transmission. Each pedal stroke is transformed into power and acceleration. Available as the exclusive 2-Way Fit<sup>™</sup> version or the classic standard or tubular tyre version, the most competitive wheel in the Fulcrum range now lets you ride even harder. Racing Zero with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets. Racing Zero is also available in the "Bright Label" version distinguished by the white hubs.

#### \*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

8 9 10

total weight: 1460 g

total weight: 1435 g

total weight: 1430 g

The Racing Zero wheel is entirely hand-assembled by a specialised Fulcrum® technician and is checked in every tiny detail with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum® wheels.

S.H.A.R.C.

0

RACING ZERO 2-WAY FIT

RACING ZERO CLINCHER

RACING ZERO TUBOLAR

**S**moothness Handling **A**erodynamics

Reactivity Comfort







Front wheel (bright version)

**Available versions:** 

2-WAY FIT™ CLINCHER TUBOLAR

# RIM

Three different rim profiles are offered	standard tyre, tubular tyre or the exclusive 2-Way Fit version, which is compatible with both tubeless and standard tyres.	2.11
Ultra Fit™	the patented rim profile ensures safe fitting of the tubeless tire. (2-Way Fit <sup>™</sup> version)	2-Way Fit™
Dynamic Balance™	keeps the wheel stable even at high speeds. The weight of the rim is balanced and always the same at every point with respect to the diametrically opposite side.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	Triple milling
Triple milling	this special milling makes it possible to reduce the peripheral weight of the rim and to increase the reactivity of the wheel.	
Differentiated rim height	26mm at the front for optimal manoeuvrability; 30mm at the back to transfer all the power to the wheel.	Dynaimc Balance™

**SPOKES** 

	Aerodynamic profile in aluminium	enables the maximum aerodynamic penetration and, thanks to the material used, less weight and greater reactivity.
	Aluminium nipples	make it possible to reduce the peripheral mass of the wheel to the minimum, thus increasing its reactivity.
nipples	Spokes anti-rotation System™	keeps the spokes consistently in the position of maximum aerodynamic penetration.
	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
-rotation System™		

QUICK RELEASE

HUB

Hub body in carbon	provides a high level of lateral stiffness and reduces the weight to a minimum.	
USB™ ceramic bearings	reduce the friction between ball and bearing, increase smo- othness, reduce weight and maintain performance over time, thanks to the absence of corrosion.	
Aluminium axle	reduces the overall weight of the wheel.	ſ
New oversize flange	8% more torsional stiffness. Greater reactivity to each change in pedalling tempo and more efficient power transmission to the wheel.	



New oversize flange



Aluminium ni

8

Spokes anti-r

Steel spine and eccentric, lever with drill lightening and aluminum die

eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

# RACING 1

Available versions: 2-WAY FIT™

CLINCHER

Two versions for the new Racing 1: choose from the classic standard tyre version or the exclusive 2-Way Fit<sup>™</sup> rim profile. Whichever version you choose, with its revised graphics and new oversize flange for increased reactivity, the Racing 1 is the ideal wheel for everyday use: whether training or racing, any opportunity is the perfect chance to reach the head of the pack.

2-WAYFIT



Racing 1 with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing 1 wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

# RIM

Three different rim profiles are offered	standard tyre, tubular tyre or the exclusive 2-Way Fit version, which is compatible with both tubeless and standard tyres.	2.10
Ultra Fit™	rim profile ensures safe fitting of the tubeless tire. (2-Way Fit™ version)	2-Way Fit™
Dynamic Balance™	keeps the wheel stable even at high speeds. The weight of the rim is balanced and always the same at every point with respect to the diametrically opposite side.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	Triple milling
Triple milling	this special milling makes it possible to reduce the periphe weight of the rim and to increase the reactivity of the wheel.	
Differentiated rim height	26mm at the front for optimal manoeuvrability; 30mm at the back to transfer all the power to the wheel.	Dynamic Balance™

# **SPOKES**

	Aerodynamic profile in aluminium	enables the maximum aerodynamic penetration and, thanks to the material used, less weight and greater reactivity.tà.
Chiefe I	Aluminium nipples	make it possible to reduce the peripheral mass of the wheel to the minimum, thus increasing its reactivity.
Aluminium nipples	Spokes anti-rotation System™	keeps the spokes consistently in the position of maximum aerodynamic penetration.
Two-to-One Spoke Ratio™	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.

**QUICK RELEASE** 

# HUB

Oversized hub body in aluminium	provides a high degree of lateral stiffness and reduces the weight to a minimum.
Top quality steel balls with cup-and-cone bearings	reduces friction and provides top performance. The cup-and- cone system makes it easy to adjust the bearings.
Aluminium axle	reduces the overall weight of the wheel.
New oversize flange	8% more torsional stiffness. Greater reactivity to each change in pedalling tempo and more efficient power transmission to the wheel.



Oversized hub body in aluminium



New oversize flange



Steel spine and eccentric, lever with drill lightening and aluminum die eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

# ALUMINIUM

**Available versions:** 

2-WAY FIT™ CLINCHER

# **RACING 3**

Extremely light weight, superlative reliability, aggressive new graphics and performance enhanced by the new oversize flange: the distinctive traits of a class-beating wheel!

Offered with two different rim profiles (standard tyre or 2-Way Fit<sup>™</sup>), Racing 3 proves once again that it is the ideal wheel for all cycling enthusiasts. Racing 3 with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.







 $^{\star}\mbox{The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.$ 

Front wheel

The Racing 3 wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Three different rim profiles are offered	standard tyre, tubular tyre or the exclusive 2-Way Fit™ version, which is compatible with both tubeless and standard tyres.	
Ultra Fit™	the patented rim profile ensures safe fitting of the tubeless tire. (2-Way Fit™ version)	
Dynamic Balance™	keeps the wheel stable even at high speeds. The weight of the rim is balanced and always the same at every point with respect to the diametrically opposite side.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	
Milled rim	this machining makes it possible to reduce the peripheral weight of the rim and makes the wheel extremely reactive.	
Differentiated rim height	26mm at the front for optimal manoeuvrability; 30mm at the back to transfer all the power to the wheel.	

2-Way Fii™



Dynamic Balance™

**SPOKES** 



Spokes anti-rotation System™

	Double-butted steel spokes with aero profile		
	Spokes anti-rotation System™	keeps the spokes consistently in the position of maximum aerodynamic penetration.	
	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.	

#### HUB

Oversized hub body in aluminium	provides a high degree of lateral stiffness and reduces the weight to a minimum.
Top quality steel balls with cup-and-cone bearings	reduces friction and provides top performance. The cup-and- cone system makes it easy to adjust the bearings.
Aluminium axle	reduces the overall weight of the wheel.
New oversize flange	8% more torsional stiffness. Greater reactivity to each change in pedalling tempo and more efficient power transmission to the wheel.





New oversize flange



New, completely redesigned and lighter wheel block Steel spine and eccentric, lever with drill lightening and aluminum die

# **QUICK RELEASE**

eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

# **RACING QUATTRO**

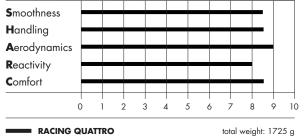
**Available versions:** CLINCHER

#### 35mm is not just any number.

Every tiny detail of the most important new product introduced in the 2013 range has been painstakingly optimised to offer the rider perfect balance and performance in all situations. An aerodynamic yet easy to ride wheel that is ideal for long level straights, but still delivers outstanding results uphill. Versatile and aggressive, a wheel created for riders who enjoy pitting themselves against a different type of route every day. Racing Quattro with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.









\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing Quattro wheel is entirely hand-assembled by a specialised Fulcrum® technician and is checked in every tiny detail with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum® wheels.

New 35mm rim	Developed to strike the perfect balance between aerodynamic efficiency, handling and lightness. The 35mm rim profile increases torsional and lateral stiffness compared with a conventional profile, for improved high speed stability.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	Nev



Dynamic Balance™

# **SPOKES**

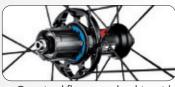
	Double-butted steel spokes with aero profile	enable maximum aerodynamic penetration.
	Spokes anti-rotation System™	keeps the spokes consistently in the position of maximum aerodynamic penetration.
aero profile	Two-to-One™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
	Aluminium nipples	make it possible to reduce the peripheral mass of the wheel to the minimum, thus increasing its reactivity.

# HUB

Oversized hub body in aluminium	provides a high degree of lateral stiffness and reduces the weight to a minimum.	
Adjustable ball bearing system in ultra high quality steel	for reduced friction and maximum performance even after extensive use. Quick and easy to adjust.	
Aluminium axle	reduces the overall weight of the wheel.	_
Oversized flange on the drive side	provides greater torsional stiffness, increases reactivity at ea change in rhythm of the pedal stroke.	_
Exclusive processing system of the 5 axis hub	this allows the spokes seat to be created perfectly in line with the tensioning line. This solution allows equal tension values to be obtained at every point of the spoke; it reduces stress on the rim and the spokes and keeps the wheel balanced.	



Oversized hub body in aluminium



Oversized flange on the drive side



New, completely redesigned and lighter wheel block Steel spine and eccentric, lever with drill lightening and aluminum die

# **QUICK RELEASE**

eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure. ALUMINIUM

WHEELS

# **RACING 5**

The new graphics and new white hub make the 2013 range Racing 5 a superior standard tyre type wheel. Beneath the new graphics, this wheel still offers the same outstanding performance as ever: the straight head spokes and exclusive 2:1 spoke layout of the rear wheel offer superlative reactivity, while a balancing system ensures reliability and stability even at high speeds.

Racing 5 with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing 5 wheel is entirely hand-assembled by a specialised Fulcrum® technician and is checked in every tiny detail with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum® wheels.

**Available versions:** CLINCHER

Rim with reinforcing eyelets

enables greater spoke tension thanks to the orientation of the spokes with the hub.

Spoke Dynamic Balance™ thanks to two balancing spokes positioned on the side opposite the rim joint, the wheel stays perfectly balanced even at high speeds.





Spoke Dynamic Balance™

# **SPOKES**



Double-butted steel spokes



Two-to-One Spoke Ratio™

Double-butted steel spokes with aero profile

> Two-to-One Spoke Ratio™

enable maximum aerodynamic penetration.

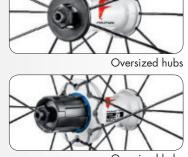
on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.

HUB

**Oversized hubs** 

increase wheel stiffness and reactivity.

Superior quality steel balls on sealed cylindrical bearings reduce friction and ensure consistent performance over time.



Oversized hubs

# QUICK RELEASE



Steel spine and eccentric, aluminum lever and die eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

Available versions: CLINCHER

# RACING 7

The new black/white graphics set even the entry level Fulcrum<sup>®</sup> wheel apart in a different league. But once again, reliability is the secret weapon of this wheel: a manual assembly process and 5 different quality control tests to check every millimetre of each wheel make the Racing 7 ideal for everyday training or for novices who already have their sights set on victory!



Racing 7 with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing 7 wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Aero profile	enables greater aerodynamic penetration.	
Machined braking surfaces	allow for safe, powerful and adaptable braking in all weather conditions.	/
Wear indicator	allows you to constantly monitor the wear and tear on the rim.	
Rim with oriented drilling of spoke seat	makes it possible to orient the spokes and increase the tensions.	7





Machined braking surfaces



Wear indicator

## ROAD

ALUMINIUM

WHEELS

**SPOKES** 



Two-to-One Spoke Ratio™

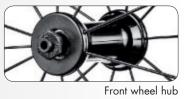
HUB

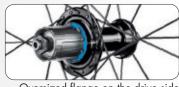
**Oversized flange on** the drive side

**Superior quality** steel balls on sealed cylindrical bearings

#### provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

reduce friction and ensure consistent performance over time.





Oversized flange on the drive side

#### **QUICK RELEASE**



Steel spine and eccentric, aluminum lever and die

eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

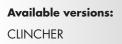


# ALU/CARBON

RED W	IND™	XLR		 42
RED W	IND™	XLR	80mm	44
RED W	IND™	XLR	105mm	46
RED W	IND™			48
RED W	IND™	80n	าฑ	50

## **RED WIND<sup>™</sup> XLR**

**Simply extraordinary.** Two-wheel enthusiasts were waiting for the Fulcrum<sup>®</sup> "aluminium/carbon" wheels and the wait has been rewarded. Indeed the Red Wind<sup>™</sup> XLR represent the top-of-the-range wheels in this segment thanks to their outstanding performance: the special aluminium/carbon structure combined with the oversize hub and spokes with the DRSC<sup>™</sup> fastening system (Directional Rim-Spoke Coupling) give the wheel incredible responsiveness. Available in the Dark Label and Bright Label version. Red Wind<sup>™</sup> XLR with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.







\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel (dark version)

The Red Wind<sup>™</sup> XLR wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Integrated aluminium/ carbon rim structure	the exclusive coupling system of the aluminium rim and carbon structure makes the rim extremely rigid, it allows for excellent responsiveness levels and durability of the wheel.	
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	aluminium/carbon rim structure
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	MoMag™

#### **SPOKES**

	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
	Self-locking oversize aluminium nipples	they reduce the peripheral mass of the wheel to a minimum, thus increasing responsiveness. The nipples' self-locking system provides the correct tension of the spokes and does not require any maintenance.
Aerodynamic profile in steel	Spokes anti-rotation System™	keeps the spokes in the position of maximum aerodynamic penetration.
	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
DRSC™ -	<b>DRSC™</b> (Directional Rim-Spoke Coupling)	exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.

#### HUB

Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	
3 different ball/ bearings options	configure the wheel according to your needs: 1. top quality standard bearings 2. USB™ ceramic balls 3. balls/bearings with CULT™ system.	
Aluminium axle	it reduces the weight of the wheel.	Oversiz





sized flange on the drive side

#### **QUICK RELEASE**



New, completely redesigned and lighter aerodynamic-profile wheel block

### Steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressu-re necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

WHEELS

## **RED WIND<sup>™</sup> XLR 80**mm

#### The most popular wheel depth among triathletes.

With your head down, grip the handlebars in the aerodynamic position and push on the pedals. The impressive 80mm rim pushes you faster towards the finish line. But what is really impressive about the "XLR 80" is their responsiveness and smoothness you can feel immediately. And today Fulcrum<sup>®</sup> allows you to configure your Red Wind<sup>™</sup> XLR 80 according to your preferences. Discover them. Red Wind<sup>™</sup> XLR 80mm with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.





\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel (dark version)

The Red Wind<sup>™</sup> XLR 80mm wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail** with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Integrated aluminium/ carbon rim structure	the exclusive coupling system of the aluminium rim and carbon structure makes the rim extremely rigid, it allows for excellent responsiveness levels and durability of the wheel.	
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	aluminium/carbon rim structure
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	Dynamic Balance™

#### **SPOKES**

	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
	Self-locking oversize aluminium nipples	they reduce the peripheral mass of the wheel to a minimum, thus increasing responsiveness. The nipples' self-locking system provides the correct tension of the spokes and does not require any maintenance.
Self-locking oversize nipples	Spokes anti-rotation System™	keeps the spokes in the position of maximum aerodynamic penetration.
	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
Two-to-One Spoke Ratio™	DRSC™ (Directional Rim-Spoke Coupling)	exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.
	НИВ	

Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	
3 different ball/ bearings options	configure the wheel according to your needs: 1. top quality standard bearings 2. USB™ ceramic balls 3. balls/bearings with CULT™ system.	Front wheel hu
Aluminium axle	it reduces the weight of the wheel.	Oversized flange on the drive sid

**QUICK RELEASE** Steel spine and eccentric,

Steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.



New, completely redesigned and lighter aerodynamic-profile wheel block

## RED WIND<sup>™</sup> XLR 105<sub>mm</sub>

"...Today I want to fly..." You decide to prepare the bike with two 105mm wheels or use the 105mm at the rear with a fantastic 50 or 80mm at the front. No matter you choice, no matter the race, today Fulcrum<sup>®</sup> is at your side with the brand new aggressive Red Wind<sup>™</sup> XLR with a 105mm profile. A wheel with no compromises, that requires determination, strength and focus and that in return with offer all the performance you are looking in a extremely "high profile" product.



**Available versions:** 

CLINCHER

Red Wind™ XLR 105mm with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel (dark version)

The Red Wind<sup>™</sup> XLR 105mm wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail** with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

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Integrated aluminium/ carbon rim structure	the exclusive coupling system of carbon structure makes the rim ex excellent responsiveness levels and	tremely rigid, it allows for	
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weig free from imperfections.	ght and a smooth surface	Integrated rim structure
Dynamic balancing on the rim	thanks to a special operation of the carbon fiber layup is positioned in perfect balancing of the rim even	n such a way as to obtain	Dynamic Balance <sup>TM</sup>
MoMag™	allows the external profile of the increases structural resistance – ma and reduces the weight of the whe	akes rim tape unnecessary	
		SPOKES	
	Aerodynamic profile in steel		rodynamic penetration and, thanks ower weight and greater reactivity.
	Self-locking oversize aluminium nipples	thus increasing responsi	l mass of the wheel to a minimum, veness. The nipples' self-locking ct tension of the spokes and does

oversize aluminium nipples



Two-to-One Spoke Ratio™

DRSC™ (Directional Rim-Spoke Coupling)

HIIR

**Spokes anti-rotation** 

System™

Two-to-One

Spoke Ratio<sup>™</sup>

exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.

keeps the spokes in the position of maximum aerodynamic

on the rear wheel the number of spokes on the drive side is

double that of the opposite side. Greater stability of the wheel

thanks to the perfect balance between the spoke tensions -

greater torsional stiffness and greater reactivity.

not require any maintenance.

penetration.

	ПОВ	
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	
3 different ball/ bearings options	configure the wheel according to your needs: 1. top quality standard bearings 2. USB™ ceramic balls 3. balls/bearings with CULT™ system.	USBTM
Aluminium axle	it reduces the weight of the wheel.	Oversized flange on the drive side

#### QUICK RELEASE



New, completely redesigned and lighter aerodynamic-profile wheel block

#### Steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

### **RED WIND**<sup>™</sup>

Available versions: CLINCHER

#### Swift as the wind.

The 50mm high rim is the ideal size for any type of route: aerodynamic on flat stretches, easy to handle and lightweight when the road is uphill or downhill. Red Wind<sup>™</sup> with aluminium and carbon profile for clinchers are the choice for those seeking an ever performing and, why not, aesthetically aggressive and yet elegant wheel. Red Wind<sup>™</sup> with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.







\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Red Wind<sup>™</sup> wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

10	the exclusive coupling system of the aluminium rim and carbon structure makes the rim extremely rigid, it allows for excellent responsiveness levels and durability of the wheel	Integrated aluminium/ carbon rim structure
Integrated rim stru	enables an extremely limited weight and a smooth surface free from imperfections.	Exclusive pressing system for the rim in unpainted carbon
Dynamic Balar	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	Dynamic balancing on the rim
	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	MoMag™

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ance™

MoMag™

ALU/CARBON

WHEELS

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ons –	<b>V</b> O

#### **SPOKES**

Two-to-One Spoke Ratio™	Spo



Self-locking nipples

)	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.	
	Spokes anti-rotation System™	keeps the spokes in the position of maximum aerodynamic penetration.	
	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.	
	<b>DRSC™</b> (Directional Rim-Spoke Coupling)	exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.	
	Self-locking nipples	it allows to maintain the right tension of the spokes and does not require any maintenance.	

#### HUB

Aluminium hub body	gives the wheel a high degree of lateral stiffness and reduces weight to the minimum.	
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	Aluminium hub body
2 different ball/ bearings options	it allows to configure the wheel according to your needs: 1. top quality standard bearings 2. USB™ ceramic balls	



New, completely redesigned and lighter wheel block

#### **QUICK RELEASE**

Steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

Oversized flange on the drive side

## RED WIND<sup>™</sup> 80<sub>mm</sub>

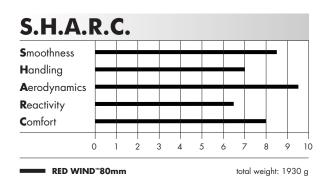
#### Experience the sensation of being pushed by the wind.

Red Wind<sup>™</sup> 80 are built to glide in the air and to cycle even faster when the wind is blowing sideways up to 20° with respect to your direction. It seems impossible, but research conducted in the wind tunnel allowed us to design the shape of the rim until we found the one that can "push you" when your fellow riders feel the wind in their face. The Red Wind<sup>™</sup> have victory built into their DNA. Red Wind<sup>™</sup> 80mm with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.





<image>





\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Red Wind<sup>™</sup> 80mm wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Integrated aluminium/ carbon rim structure	the exclusive coupling system of the aluminium rim and carbon structure makes the rim extremely rigid, it allows for excellent responsiveness levels and durability of the wheel.	
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	Integrated rim structure
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	Dynamic Balance™
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.	

MoMag™

ALU/CARBON

WHEELS

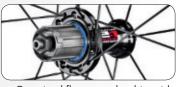
ROAD

	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
	Spokes anti-rotation System™	keeps the spokes in the position of maximum aerodynamic penetration.
Two-to-One Spoke Ratio™	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
	<b>DRSC™</b> (Directional Rim-Spoke Coupling)	exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.
Self-locking nipples .	Self-locking nipples	it allows to maintain the right tension of the spokes and does not require any maintenance.

Aluminium hub body	gives the wheel a high degree of lateral stiffness and reduces weight to the minimum.	
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	1
2 different ball/ bearings options	it allows to configure the wheel according to your needs: 1. top quality standard bearings 2. USB™ ceramic balls	P

HUB





Oversized flange on the drive side



New, completely redesigned and lighter wheel block

#### QUICK RELEASE

steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

#### SPOKES

51



## FULL CARBON

RACING LIGHT™ XLR	54
RACING SPEED™ XLR	56
RACING SPEED™ XLR 80mm	58
RACING SPEED™	60

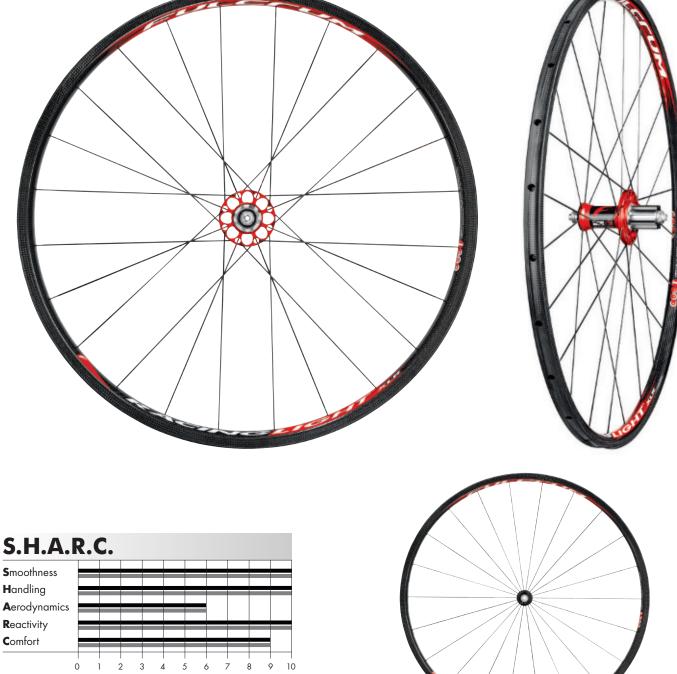
## RACING LIGHT<sup>™</sup> XLR

Available versions: CLINCHER TUBOLAR

#### Born to climb mountains. And win.

No wheel is lighter or more agile, designed to confront the toughest ascents and power through every bend. The full carbon rim responds promptly to every pedal stroke and the hubs with CULT<sup>™</sup> technology assure the maximum smoothness, unaltered over time.

Racing Light<sup>™</sup> XLR with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



RACING LIGHT<sup>\*\*</sup>XLR CLINCHER RACING LIGHT<sup>\*\*</sup>XLR TUBOLAR

Front wheel

\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

total weight: 1345 g

total weight: 1226 g

The Racing Light<sup>™</sup> XLR wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

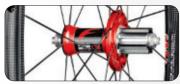


HUB

Rim	Rim with profile for tubular or clincher	
Low profile full carbon	extremely limited weight. Very high lateral stiffness and reactivity values for the wheel.	profile for clincher - Full carbon
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	profile for tubular - Full carbon
New brake pads made especially for carbon wheels	the new blend increases the brake performance on both dry and wet surfaces without increasing the wear and tear on the pad. For a more modular and more secure stop.	New brake pads

**SPOKES** 





Two-to-One Spoke Ratio™

Aerodynamic profile in steel ensuring the maximum of to the material employed on the rear wheel the n double that of the opposition thanks to the perfect bo

ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.

on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.

**Carbon hub body** gives the wheel a high degree of lateral stiffness and reduces weight to the minimum. increases the torsional stiffness, increasing reactivity at each **Oversized flange on** the drive side change in rhythm of the pedal stroke. Carbon hub body **Ball bearings with** the combination between the highest quality ceramic balls **CULT™** technology and bearings in special Cronitec<sup>™</sup> steel. CULT<sup>™</sup> makes the wheel nine times smoother than the standard system of steel ball bearings. Balls and bearings are lubricated with only a thin film of oil rather than grease. CULT™ makes it possible to eliminate rust and maintain the performance features over Oversized flange on the drive side time. Cup and cone bearings easy ball/bearing adjustment - reduces possible ball/bearing play – precision operation – maintains performance over time. **Aluminium axle** reduces the overall weight of the wheel. CULT™

#### QUICK RELEASE



New, completely redesigned and lighter aerodynamic-profile wheel block steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

## RACING SPEED<sup>™</sup> XLR

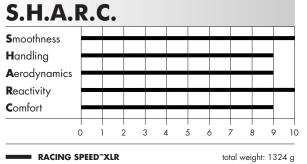
Slice through the air. Release all your power and accelerate right up to the finish line. Against the clock or against your rivals, with Racing Speed<sup>™</sup> XLR the winner is you. Light, reactive, and smooth: Racing Speed<sup>™</sup> XLR represents the maximum level of technology available and the best choice for finishing ahead of the pack. **The Racing Speed<sup>™</sup> XLR are now also available in the "Dark Label" version.** Racing Speed<sup>™</sup> XLR with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



**Available versions:** 

TUBOLAR







\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel (dark version)

The Racing Speed<sup>™</sup> XLR wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

High profile for 50mm tubulars	enables the maximum aerodynamic penetration, reducing friction. The design of the profile details makes the wheel extremely manageable even in a crosswind.	
Full carbon	extremely limited weight. Gives the wheel an extremely high level of lateral stiffness and greater reactivity.	High profile for 50mm tubulars
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	Full carbon
New brake pads made especially for carbon wheels	the new blend increases the brake performance on both dry and wet surfaces without increasing the wear and tear on the pad. For a more modular and more secure stop.	New brake pads

#### **SPOKES**

	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
	Front	18 aero spokes, radially laced in stainless steel with variable cross-section.
Aerodynamic profile in steel	Rear	21 aero spokes in stainless steel with variable cross-section, doubled on the drive side (Two-to-One™).
Two-to-One Spoke Ratio™	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.

	НИВ	
Carbon hub body	gives the wheel a high degree of lateral stiffness and reduces weight to the minimum.	
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Ball bearings with CULT™ technology	the combination between the highest quality ceramic balls and bearings in special Cronitec <sup>™</sup> steel. CULT <sup>™</sup> makes the wheel nine times smoother than the standard system of steel ball bearings. Balls and bearings are lubricated with only a thin film of oil rather than grease. CULT <sup>™</sup> makes it possible to eliminate rust and maintain the performance features over time.	Carbon hub body
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	6061
Aluminium axle	reduces the overall weight of the wheel.	CULT™





New, completely redesigned and lighter aerodynamic-profile wheel block

#### QUICK RELEASE

steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressu-re necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

**Available versions:** TUBOLAR

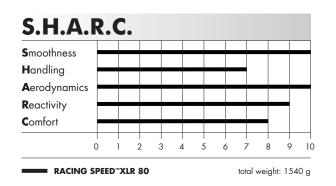
## RACING SPEED<sup>™</sup> XLR 80

**Performances over the top.** The brand new Racing Speed<sup>™</sup> XLR with carbon rim for 80mm clinchers are been designed in our wind tunnel and developed with the precious indications of professional athletes. The result is extraordinary. The aerodynamic design allows for top speed, acceleration and manoeuvrability even with cross winds; the smoothness levels exceed expectations: the CULT<sup>™</sup> ball/ bearing system is 9 times smoother than that of standard bearings!



Racing Speed<sup>™</sup> XLR 80mm with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.







\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel (dark version)

The Racing Speed<sup>™</sup> XLR 80 wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail** with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

High profile for 80mm tubulars	enables the maximum aerodynamic penetration, reducing friction. The design of the profile details makes the wheel extremely manageable even in a crosswind.	RING
Full carbon	extremely limited weight. Gives the wheel an extremely high level of lateral stiffness and greater reactivity.	High profile for 80mm tubulars
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	Full carbon
New brake pads made especially for carbon wheels	the new blend increases the brake performance on both dry and wet surfaces without increasing the wear and tear on the pad. For a more modular and more secure stop.	New brake pads

**SPOKES** 

SPORE VI	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
	Front	16 aero spokes, radially laced in stainless steel with variable cross-section.
Aerodynamic profile in steel	Rear	18 aero spokes in stainless steel with variable cross-section, doubled on the drive side (Two-to-One™).
Two-to-One Spoke Ratio™	Two-to-One Spoke Ratio™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
HU	JB	

Carbon hub body	gives the wheel a high degree of lateral stiffness and reduces weight to the minimum.	
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Ball bearings with CULT™ technology	the combination between the highest quality ceramic balls and bearings in special Cronitec <sup>™</sup> steel. CULT <sup>™</sup> makes the wheel nine times smoother than the standard system of steel ball bearings. Balls and bearings are lubricated with only a thin film of oil rather than grease. CULT <sup>™</sup> makes it possible to eliminate rust and maintain the performance features over time.	Carbon hub body
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	So Guel
Aluminium axle	reduces the overall weight of the wheel.	CULT™



New, completely redesigned and lighter aerodynamic-profile wheel block

#### QUICK RELEASE

steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressu-re necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

## **RACING SPEED**<sup>™</sup>

Performance like a Pro for a wheel available to all cycling enthusiasts.

The wheel for tubular tires most beloved by the pros has now become more accessible. The 50mm full carbon rim evolved from the "big brother" XLR and the oversized aluminium hub guarantee the utmost performance at a decidedly "aggressive" price. **The Racing Speed™ are now also available in the Dark Label version.** Racing Speed™ with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.





\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

8 9 10

total weight: 1360 g

Front wheel (dark version)

The Racing Speed<sup>™</sup> wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Comfort

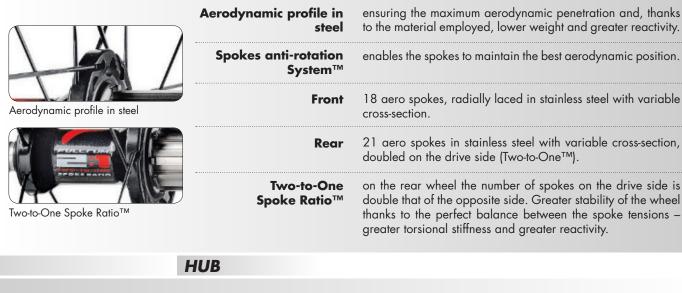
0

RACING SPEED™ TUBOLAR

2 3 4 5 6 7

High profile for 50mm tubulars	enables the maximum aerodynamic penetration, reducing friction. The design of the profile details makes the wheel extremely manageable even in a crosswind.	
Full carbon	extremely limited weight. Gives the wheel an extremely high level of lateral stiffness and greater reactivity.	High profile for 50mm tubulars
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain perfect balancing of the rim even at high speeds.	Full carbon
New brake pads made especially for carbon wheels	the new blend increases the brake performance on both dry and wet surfaces without increasing the wear and tear on the pad. For a more modular and more secure stop.	New brake pads for carbon wheels

**SPOKES** 



Hub in aluminium	provides a high degree of lateral stiffness while keeping the weight low.	
Oversized flange on the drive side	provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.	-
Cup and cone bearings	easy ball/bearing adjustment – reduces possible ball/be- aring play – precision operation – maintains performance over time.	
Aluminium axle	reduces the overall weight of the wheel.	



Oversized flange on the drive side

#### **QUICK RELEASE**



New, completely redesigned and lighter aerodynamic-profile wheel block

#### steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

FULL CARBON



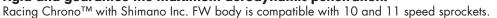


# CHRONO

RACING CHRONO™ 64

## **RACING CHRONO**<sup>™</sup>

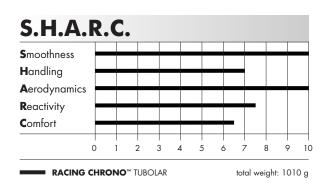
Just ask them to go fast, really fast. The lenticular disk in polyaramide with rim in aluminium for tubular tires dedicated to Triathlon and Time Trial events was designed and developed entirely in the Fulcrum<sup>®</sup> R&D Department. The "tensile structure" design is optimised to make the **Racing Chrono™ extremely rigid and guarantee the maximum aerodynamic penetration.** 











\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

The Racing Chrono<sup>™</sup> wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

for tubular tires

**Rim in aluminium** 

Disk in polyaramide tensile structure makes the wheel extremely rigid and maximises aerodynamic penetration.



Disco in polyaramide

		HUB
Perno in alluminio	Ball bearings with CULT™ technology	the combination between the highest quality ceramic balls and bearings in special Cronitec <sup>™</sup> steel. CULT <sup>™</sup> makes the wheel nine times smoother than the standard system of steel ball bearings. Balls and bearings are lubricated with only a thin film of oil rather than grease. CULT <sup>™</sup> makes it possible to eliminate rust and maintain the performance features over time.
	Aluminium axle	reduces the overall weight of the wheel.
	Campagnolo® 10/11	Compatible with Campagnolo® 10 / 11 drivetrain.

#### **QUICK RELEASE**

New, completely redesigned and lighter aerodynamic-profile wheel block

steel spine and eccentric, lever with drill lightening and aluminum die. Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.







# CRANKSETS

**TECHNOLOGIES** 

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RACING TORQ™ RRS	69
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#### **CRANKSETS TECHNOLOGIES**

### HIRTH JOINT

The Fulcrum<sup>®</sup> Racing Torq<sup>™</sup> crankset structure consists of two semi-axles fixed to the respective arms and coupled together by means of a frontal joint of the Hirth type.

The Ultra Torque™ axle assembly is inside the bottom bracket shell in order to reduce lateral bulk. Its life over time is increased by the new anodization treatment which also comes with a darker and more aggressive colour. Compatibility with the most common drivetrains is ensured.



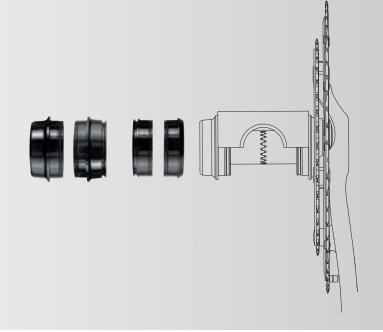
### **OS-FIT<sup>™</sup> CUPS**

The Ultra Torq<sup>™</sup> OS-Fit<sup>™</sup> cups by Fulcrum<sup>®</sup> have been designed to respond to the growing trend of frames with oversize bottom bracket shell. We developed these cups so that we wouldn't have to modify the distinctive performance features and lightness of the Racing Torq<sup>™</sup> crankset. The OS-Fit<sup>™</sup> cups simply replace the standard Racing Torq<sup>™</sup> cups and have the same bearing seat function.

OS-Fit<sup>™</sup> cups are available in versions compatible with bottom bracket shells with 86.5 mm diameter and with BB30 bottom brackets, and are 20 grams lighter than the standard cups. A special tool is required for fitting the OS-Fit<sup>™</sup> cups.

### **CULT**<sup>™</sup>

Ceramic Ultimate Level Technology, CULT<sup>TM</sup>. It's the technical advancement adopted for the most revolutionary crankset in the Fulcrum<sup>®</sup> range, the Racing Torq<sup>TM</sup> RRS, an unprecedented system which guarantees performance at the maximum level. As well as using the best ceramic ball bearings on the market, a new treatment for the races and bearings has been developed with Cronitect<sup>®</sup> steel, using the "Advanced by FAG" technology by Schaeffler Group. Maximum corrosion resistance, no grease is necessary for lubrication, just a small amount of oil.







## **RACING TORQ<sup>™</sup> RRS**

There are no compromises in the top of the range crankset in the Fulcrum<sup>®</sup> series. The use of CULT<sup>™</sup> technology and of the High Efficiency Hard-Ox anodization treatment for the chainrings make this model suitable for the toughest and most extreme competitive use. Weight is kept low thanks to Hollow Crank Technology<sup>™</sup>.





Standard

Compact

MODEL	<b>OPTIONS</b>	DESCRIPTION	WEIGHT (g)
<b>crankset</b> RACING TORQ™ RRS CARBON 10s	170, 172.5, 175 mm 39-52, 39-53	Fulcrum <sup>®</sup> Hollow Crank Technology composite crankarms - light alloy fixing bolts and nuts - CULT™ bearings (Ceramic Ulti- mate Level Technology) - integrated ULTRA-TORQUE™ semi-axles - requires RACING TORQ™ BB cups	695
<b>crankset</b> RACING TORQ™ RRS CT™ CARBON 10s	170, 172.5, 175 mm 34-50	Fulcrum <sup>®</sup> Hollow Crank Technology composite crankarms - light alloy fixing bolts and nuts - CULT <sup>™</sup> bearings (Ceramic Ulti- mate Level Technology) - integrated ULTRA-TORQUE <sup>™</sup> semi-axles - requires RACING TORQ <sup>™</sup> BB cups	695
<b>BB outboard cups</b> RACING TORQ™	ITA, ENG	aluminium	49
<b>integrated cups</b> RACING TORQ™ OS-Fit™	86,5x41, BB30	aluminium - integrated cups for oversize shells	29

## RACING TORQ<sup>™</sup> RS

Has been conceived for competitive racing at the maximum level and uses Fulcrum<sup>®</sup> Hollow Crank Technology which allows cranksets to be made with arms with an internal cavity and therefore achieve weight while maintaining the structural quality intact.



Standard

New dark version

MODEL	OPTIONS	DESCRIPTION	WHEIGHT (g)
<b>crankset</b> RACING TORQ™ RS CARBON 10s	170, 172.5, 175 mm 39-52, 39-53	Fulcrum® Hollow Crank Technology composite crankarms - light alloy fixing bolts and nuts - integrated ULTRA-TORQUE™ semi-axles - requires RACING TORQ™ BB cups	699
<b>crankset</b> RACING TORQ™ RS CT™ CARBON 10s	170, 172.5, 175 mm 34-50	Fulcrum® Hollow Crank Technology composite crankarms - light alloy fixing bolts and nuts - integrated ULTRA-TORQUE™ semi-axles - requires RACING TORQ™ BB cups	699
<b>BB outboard cup</b> RA- CING TORQ™	ITA, ENG	aluminium	49
<b>integrated cups</b> RACING TORQ™ OS-Fit™	86,5x41, BB3O	aluminium - integrated cups for oversize shells	29

## RACING TORQ<sup>™</sup> R

On the other hand is perfect for intense and persistent use, typical of enthusiasts of high calibre even if not necessarily athletes. Fulcrum® cranksets feature the Campagnolo® Ultra Torque™ system, the only one that can guarantee lightness, rigidity, simple assembly and maintenance.



Standard

Compact

MODEL	<b>OPTIONS</b>	DESCRIPTION	WHEIGHT (g)
<b>crankset</b> RACING TORQ™ R CARBON 10s	170, 172.5, 175 mm 39-52, 39-53	composite crankarms - integrated ULTRA-TORQUE™ semi-axles - requires RACING TORQ™ BB cups	751
<b>crankset</b> RACING TORQ™ R CT™ CARBON 10s	170, 172.5, 175 mm 34-50	34-50 - composite crankarms - integrated ULTRA-TORQUE™ semi- axles - requires RACING TORQ™ BB cups	751
<b>BB outboard cups</b> RACING TORQ™	ITA, ENG	aluminium	49
<b>integrated cups</b> RACING TORQ™ OS-Fit™	86,5x41, BB30	aluminium - integrated cups for oversize shells	29

# CYCLOCROSS

**Cyclocross means fatigue, sweat and satisfaction.** And not just for the professional.

Every component of the bicycle must be capable of delivering maximum performance in an environment predominated by mud, water and sand.

But instead of being daunted by all this, the designers at Fulcrum<sup>®</sup> see it as a challenge to set the bar even higher.

**Fulcrum**<sup>®</sup> has created a range dedicated to this discipline, to offer every professional or amateur rider the perfect wheel to suit his or her needs.

*Mission accomplished.* Now get out there, have fun and earn your place on the podium.



Available versions: CLINCHER

### **RED POWER™ 29 XL**

The rules change and Fulcrum is ready.

Cyclo-cross allows disc brakes to be used and Red Power<sup>™</sup> 29 XL is the wheel that lets you do that. Completely new and highly efficient, the XL is at the top of its category thanks to the new milled rim, the straight-head spokes and oversize hub that make the wheel highly rigid and reactive and ready for any terrain.





\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Red Power 29<sup>™</sup> XL wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

### RIM

New milled rim of 29"

extremely lightweight. Excellent lateral stiffness and reactivity of the wheel.

**New graphics** 

aggressive graphics dedicated to the world of off-road cycling.

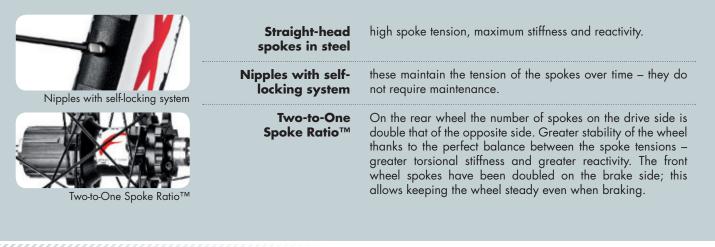


New milled rim of 29"

WHEELS

**CYCLOCROSS** 

### **SPOKES**



HUB

Oversize aluminium hub	permits a higher degree of lateral stiffness and high torque transmission.
Sealed industrial bearings	exceptional quality and smoothness; high efficiency over time.
20mm aluminium pin	extremely lightweight – very high rigidity. Improves steering precision.
Set of QR/15mm Thru-Axle front wheel adaptors	permits use of the same wheel with standard front forks and 15mm link pin.
Set of Syntace X-12 135/142mm rear wheel adaptors	the O.L.D. of the 12mm Thru-Axle rear wheel can be increased from 135 to 142 mm.





20mm aluminium pin



Sintace X-12 135/142mm adaptors



QR/15mm adaptors

### **QUICK RELEASE**



Steel spine and eccentric, aluminum lever and die

Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

# **RED WIND<sup>™</sup> XLR CX**

**To win in the mud, sand and rain, you must have wheels with specific features.** And in a constantly developing discipline such as cyclocross, Fulcrum<sup>®</sup> definitely doesn't want to stand by and wait. The Red Wind<sup>™</sup>, featuring the typical "CX" that characterises a world where cold and pain are not an issue, are the lightweight, smooth and sturdy wheels required by the champions in this discipline. Red Wind<sup>™</sup> XLR CX with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.

### Available versions: CLINCHER



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Red Wind<sup>™</sup> XLR CX wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Aluminium profile for clinchers	it allows to use the traditional clincher up to 35mm.	
Integrated aluminium/ carbon rim structure	the exclusive coupling system of the aluminium rim and carbon structure makes the rim extremely rigid, it allows for excellent responsiveness levels and durability of the wheel.	Aluminium profile
Exclusive pressing system for the rim in unpainted carbon	enables an extremely limited weight and a smooth surface free from imperfections.	$\bigcirc$
Dynamic balancing on the rim	thanks to a special operation of the production process, the carbon fiber layup is positioned in such a way as to obtain	Dynamic balancing on the rim
on the rim	perfect balancing of the rim even at high speeds.	$\bigcap$
<b>MoMag™</b> allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary and reduces the weight of the wheel.		
		MoMaa™

**SPOKES** 

	Aerodynamic profile in steel	ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
ron cyclocnoss	Spokes anti-rotation System™	keeps the spokes in the position of maximum aerodynamic penetration.
	2:1 Two-to-One™	on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.
DRSC DRSC Allocking oversize nipples	DRSC (Directional Rim-Spoke Coupling)	exclusive rim/spoke coupling system. It allows the rim, spokes, nipples and hub to align properly with the same tensioning value in all areas.
	Self-locking oversize aluminium nipples	they reduce the peripheral mass of the wheel to a minimum, thus increasing responsiveness. The nipples' self-locking system provides the correct tension of the spokes and does not require any maintenance.

Aluminium hub body	gives the wheel a high degree of lateral stiffness and reduces weight to the minimum.	XX
Oversized flange on the drive side	increases the torsional stiffness, increasing reactivity at each change in rhythm of the pedal stroke.	
Top quality industrial bearings with adjustment system:	maximum smoothness and a long-life performance.	Aluminium hub body
Double gasket	protects the ball bearing seats from water and mud, ensures consistent performance over time.	
Aluminium axle	it reduces the overall weight.	Oversized flange on the drive side





Spoke

New, completely redesigned and lighter aerodynamic-profile wheel block

HUB

steel spine and eccentric, lever with drill lightening and aluminum die.

WHEELS

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Available versions: CLINCHER

# **RACING QUATTRO CX**

### Cyclocross demands reliability, lightness and reactivity.

The new 35mm wheel by Fulcrum has been designed to give that extra edge to athletes competing in extreme conditions. The new Quattro does not fear mud, sand or rain, and extreme conditions only highlight its superlative performance. Derived from the Quattro road wheel, the CX with dual hub seals rewards you with superb feel for maximum performance right from the start.

Racing Quattro CX with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.

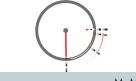


The Racing Quattro CX wheel is entirely hand-assembled by a specialised Fulcrum® technician and is checked in every tiny detail with

### RIM

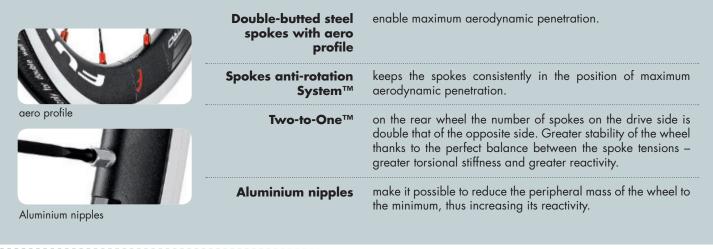
New 35mm rim	Developed to strike the perfect balance between aerodynamic efficiency, handling and lightness. The 35mm rim profile increases torsional and lateral stiffness compared with a conventional profile, for improved high speed stability.	
MoMag™	allows the external profile of the rim to be free of holes – increases structural resistance – makes rim tape unnecessary	
	and reduces the weight of the wheel.	





MoMag®

**SPOKES** 



HUB

Oversized hub body in aluminium	provides a high degree of lateral stiffness and reduces the weight to a minimum.	
Adjustable ball bearing system in ultra high quality steel	for reduced friction and maximum performance even after extensive use. Quick and easy to adjust.	
Aluminium axle	reduces the overall weight of the wheel.	Aluminium hub body
Oversized flange on the drive side	provides greater torsional stiffness, increases reactivity at ea change in rhythm of the pedal stroke.	
Exclusive processing system of the 5 axis hub	this allows the spokes seat to be created perfectly in line with the tensioning line. This solution allows equal tension values to be obtained at every point of the spoke; it reduces stress on the rim and the spokes and keeps the wheel balanced.	Oversized flange on the drive side
Double gasket	protects the ball bearing seats from water and mud, ensures consistent performance over time.	



New, completely redesigned and lighter wheel block Steel spine and eccentric, lever with drill lightening and aluminum die

### QUICK RELEASE

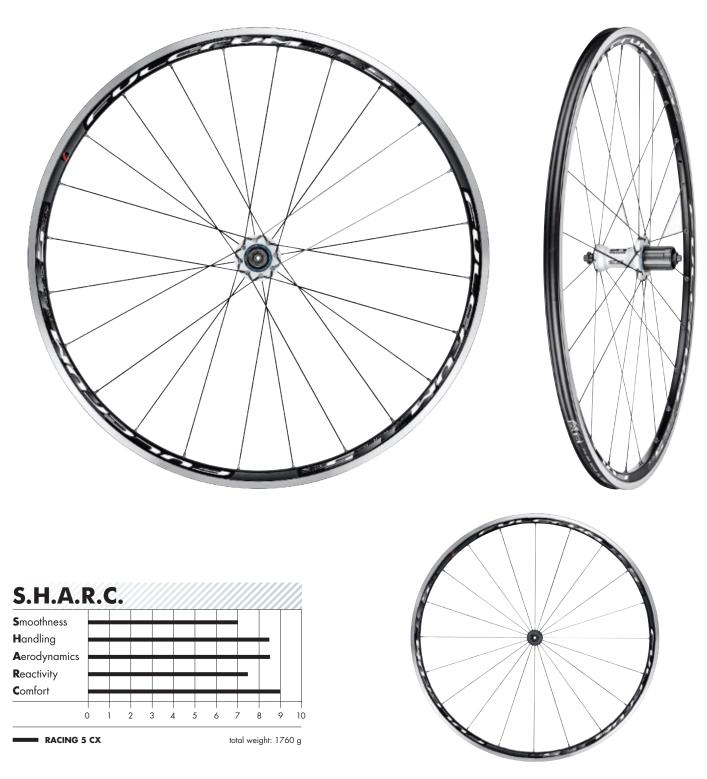
eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure. WHEELS

### Available versions: CLINCHER

# **RACING 5 CX**

Racing 5 road is the starting point. But the version bearing the "CX" acronym -saved for sports that don't like clean roads- hides the real true "invisible" novelty inside the hub: a double coating that seals the bearings' base guarantees smooth performance and long life, even under extreme conditions of use. Racing 5 CX with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.





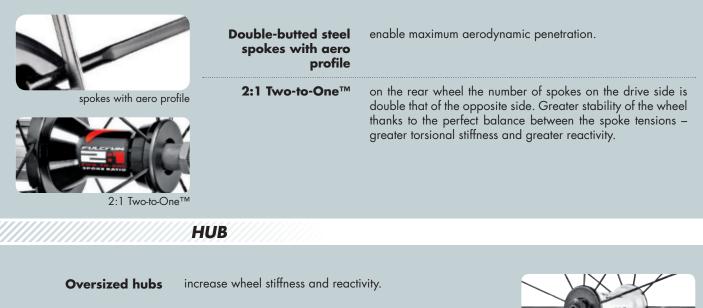
\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing 5 CX wheel is **entirely hand-assembled** by a specialised Fulcrum<sup>®</sup> technician and is **checked in every tiny detail with electronic instrumentation**. This ensures maximum performance and reliability for all Fulcrum<sup>®</sup> wheels.

Maximum compatibility	the profile of the rim can hold up to 35mm clinchers.		
Spoke Dynamic Balance™	thanks to two balancing spokes positioned on the side opposite the rim joint, the wheel stays perfectly balanced even at high speeds.		
		Spoke Dynamic Balance™	
Rim with reinforcing eyelets	Enables greater spoke tension thanks to the orientation of the spokes with the hub.	Jan 19	

### **SPOKES**



Superior quality<br/>steel balls on sealed<br/>cylindrical bearingsreduce friction and ensure consistent performance over time.Double gasketprotects the ball bearing seats from water and mud, ensures

# Oversized hubs



Double gasket

### **QUICK RELEASE**



Steel spine and eccentric, aluminum lever and die

consistent performance over time.

Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure.

Rim with reinforcing eyelets

**Available versions:** CLINCHER

# RACING 7 CX

At first sight they might look like road wheels...but they are not! The main and actual difference, apart from "CX" following "Racing 7", lies inside the new hub with a double gasket to protect bearings from dust and mud, guaranteeing the smoothness and long life of components.

Racing 7 CX with Shimano Inc. FW body is compatible with 10 and 11 speed sprockets.



\*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

Front wheel

The Racing 7 CX wheel is entirely hand-assembled by a specialised Fulcrum® technician and is checked in every tiny detail with electronic instrumentation. This ensures maximum performance and reliability for all Fulcrum® wheels.

### RIM

Aero profile	enables greater aerodynamic penetration.	
Machined braking surfaces	allow for safe, powerful and adaptable braking in all weather conditions.	
Wear indicator	allows you to constantly monitor the wear and tear on the rim	Aero profile
Rim with oriented drilling of spoke seat	makes it possible to orient the spokes and increase the tensions.	Machined braking surfaces



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Wear indicator

SPOKES

provide high levels of tension and stiffness.

on the rear wheel the number of spokes on the drive side is double that of the opposite side. Greater stability of the wheel thanks to the perfect balance between the spoke tensions – greater torsional stiffness and greater reactivity.

HUB

Oversized flange on reduce f the drive side

Superior quality steel balls on sealed cylindrical bearings

Steel spokes with 2mm cross-section

Two-to-One Spoke Ratio™

**Double gasket** 

### reduce friction and ensure consistent performance over time.

Steel spokes with 2mm

cross-section

Two-to-One

Spoke Ratio<sup>™</sup>

provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

protects the ball bearing seats from water and mud, ensures consistent performance over time.





Oversized flange on the drive side



Double gasket

### **QUICK RELEASE**



Steel spine and eccentric, aluminum lever and die Eccentric-closure system allows cyclist to modulate the pressure necessary for heightened sensitivity to find the proper closure for the block. Easy to use, with a material resistant to wear and tear, rust, and pressure. WHEELS



# TECH DATA

# ROAD

ALUMINIUM	Weight*	nominal and ETRTO width	CULT™/USB™ bearings	Dynamic Balance (R=rim; S=spokes)
<b>RACING ZERO</b> 2-WAY FIT <sup>™</sup> front	625	20,5/15	U	R
RACING ZERO 2-WAY FIT™ rear	835	20,5/15	U	R
RACING ZERO CLINCHER front	610	20,5/15	U	R
RACING ZERO CLINCHER prear	825	20,5/15	U	R
RACING ZERO TUBOLAR front	615	20,5/-	U	R
RACING ZERO TUBOLAR rear	815	20,5/-	U	R
<b>RACING 1</b> 2-WAY FIT <sup>™</sup> front	645	20,5/15	S	R
RACING 1 2-WAY FIT <sup>™</sup> rear	860	20,5/15	S	R
RACING 1 CLINCHER front	850	20/15	no	R
RACING 1 CLINCHER rear	635	20/15	no	R
<b>RACING 3</b> 2-WAY FIT <sup>™</sup> front	665	20,5/15	S	R
RACING 3 2-WAY FIT™ rear	900	20,5/15	S	R
RACING 3 CLINCHER front	665	20/15	S	R
RACING 3 CLINCHER rear	885	20/15	S	R
RACING QUATTRO CLINCHER front	788	20,5/15	S	R
RACING QUATTRO CLINCHER rear	937	20,5/15	S	R
RACING 5 CLINCHER front	775	20/15	no	S
RACING 5 CLINCHER rear	985	20/15	no	S
RACING 7 CLINCHER front	828	20/15	no	no
RACING 7 CLINCHER rear	1021	20/15	no	no

Spoke anti-rotation system	machining	spoke material	number of spokes	type of spokes	HUB material (body/axle)	compatibility
yes	3	aluminium	16 radial	aero with variable section	Carb/Alu/Alu	100mm
yes	3	aluminium	7 left 14 right	aero with variable section	Carb/Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	3	aluminium	16 radial	aero with variable section	Carb/Alu/Alu	100mm
yes	3	aluminium	7 left 14 right	aero with variable section	Carb/Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	3	aluminium	16 radial	aero with variable section	Carb/Alu/Alu	100mm
yes	3	aluminium	7 left 14 right	aero with variable section	Carb/Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	3	aluminium	16 radial	aero with variable section	Alu/Alu	100mm
yes	3	aluminium	7 left 14 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	3	aluminium	16 radial	aero with variable section	Alu/Alu	100mm
yes	3	aluminium	7 left 14 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	1	stainless steel	16 radial	aero with variable section	Alu/Alu	100mm
yes	1	stainless steel	7 left 14 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	1	stainless steel	16 radial	aero	Alu/Alu	100mm
yes	1	stainless steel	7 left 14 right	aero	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	16 radial	aero	Alu/Alu	100mm
yes	no	stainless steel	7 left 14 right	aero	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	20 radial	aero with variable section	Alu/Alu	100mm
no	no	stainless steel	8 left 16 right	aero	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	20 radial	standard 2mm	Alu/Acc	100mm
no	no	stainless steel	8 left 16 right	standard 2mm	Alu/Acc	130mm CAMPA 9/10/11 HG 8/9/10/11

\* Average weight - does not include the quick-release and the rim-tape and it refers to the Campagnolo® FW body version. \*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body.

ROAD

### TECH DATA

# ROAD

ALU/CARBON	Weight*	nominal and ETRTO width	CULT™/USB™ bearings	Dynamic Balance (R=rim; S=spokes)
<b>RED WIND<sup>™</sup> XLR</b> CLINCHER front	727	20,5/15	S/U/C	R
<b>RED WIND<sup>™</sup> XLR</b> CLINCHER rear	863	20,5/15	S/U/C	R
<b>RED WIND<sup>™</sup> XLR 80mm</b> CLINCHER front	815	20,5/15	S/U/C	R
<b>RED WIND™ XLR 80mm</b> CLINCHER rear	955	20,5/15	S/U/C	R
<b>RED WIND™ XLR 105mm</b> CLINCHER front	910	20,5/15	S/U/C	R
<b>RED WIND™ XLR 105mm</b> CLINCHER rear	1050	20,5/15	S/U/C	R
<b>RED WIND™</b> CLINCHER front	785	20,5/15	S/U	R
<b>RED WIND</b> <sup>™</sup> CLINCHER rear	970	20,5/15	S/U	R
<b>RED WIND™ 80mm</b> CLINCHER front	865	20,5/15	S/U	R
<b>RED WIND™ 80mm</b> CLINCHER rear	1065	20,5/15	S/U	R
FULL CARBON				
RACING LIGHT <sup>™</sup> XLR CLINCHER front	595	20,5/13	С	R
RACING LIGHT <sup>™</sup> XLR CLINCHER rear	750	20,5/13	С	R
<b>RACING LIGHT<sup>™</sup> XLR</b> TUBOLAR front	546	20/-	С	R
RACING LIGHT <sup>™</sup> XLR TUBOLAR rear	680	20/-	С	R
<b>RACING SPEED™ XLR</b> TUBOLAR front	577	20/-	С	R
<b>RACING SPEED™ XLR</b> TUBOLAR rear	747	20/-	С	R
<b>RACING SPEED™ XLR 80mm</b> TUBOLAR front	715	20/-	С	R
<b>RACING SPEED™ XLR 80mm</b> TUBOLAR rear	825	20/-	С	R
<b>RACING SPEED</b> <sup>™</sup> TUBOLAR front	590	20/-	S	R
<b>RACING SPEED</b> <sup>™</sup> TUBOLAR rear	770	20/-	S	R
CHRONO				
<b>RACING CHRONO</b> <sup>™</sup> TUBOLAR rear	1010	19/-	С	no

### TECH DATA

Spoke anti-rotation system	machining	spoke material	number of spokes	type of spokes	HUB material (body/axle)	compatibility
yes	no	stainless steel	18 radial	aero with variable section	Alu/Alu	100mm
yes	no	stainless steel	7 left 14 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	16 radial	aero with variable section	Alu/Alu	100mm
yes	no	stainless steel	6 left 12 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	16 radial	aero with variable section	Alu/Alu	100mm
yes	no	stainless steel	6 left 12 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	18 radial	aero with variable section	Alu/Acc	100mm
yes	no	stainless steel	7 left 14 right	aero with variable section	Alu/Acc	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	16 radial	aero with variable section	Alu/Acc	100mm
yes	no	stainless steel	6 left 12 right	aero with variable section	Alu/Acc	130mm CAMPA 9/10/11 HG 8/9/10/11

no	no	stainless steel	22 radial	aero with variable section	carb-alu/Alu	100mm
no	no	stainless steel	8 left 16 right	aero with variable section	carb-alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	22 radial	aero with variable section	carb-alu/Alu	100mm
no	no	stainless steel	8 left 16 right	aero with variable section	carb-alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	18 radial	aero with variable section	carb-alu/Alu	100mm
no	no	stainless steel	7 left 14 right	aero with variable section	carb-alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	16 radial	aero with variable section	carb-alu/Alu	100mm
no	no	stainless steel	6 left 12 right	aero with variable section	carb-alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	18 radial	aero with variable section	carb-alu/Alu	100mm
yes	no	stainless steel	7 left 14 righ	aero with variable section	carb-alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11

no	no	-	-	disc	Alu/Alu	132mm CAMPA 10/11V

\* Average weight - does not include the quick-release and the rim-tape and it refers to the Campagnolo® FW body version. \*The weight of the rear wheel is increased by 45g in case of wheels with Shimano Inc. e Sram Co. body. ROAD

# **CYCLOCROSS**

	Weight*	nominal and ETRTO width	CULT™/USB™ bearings	Dynamic Balance (R=rim; S=spokes)	
<b>RED POWER™ 29 XL</b> CLINCHER front	875	25/19	S	no	
<b>RED POWER™ 29 XL</b> CLINCHER rear	1040	25/19	S	no	
<b>RED WIND™ XLR CX</b> CLINCHER front	737	20,5/15	s/U/C	R	
<b>RED WIND™ XLR CX</b> CLINCHER rear	873	20,5/15	S/U/C	R	
RACING QUATTRO CX CLINCHER front	788	20,5/15	S	R	
RACING QUATTRO CX CLINCHER rear	937	20,5/15	S	R	
RACING 5 CX CLINCHER front	775	20/15	no	S	
RACING 5 CX CLINCHER rear	985	20/15	no	S	
RACING 7 CX CLINCHER front	828	20/15	no	no	
RACING 7 CX CLINCHER rear	1021	20/15	no	no	

						TECH DATA
Spoke anti-rotation system	machining	spoke material	number of spokes	type of spokes	HUB material (body/axle)	compatibility
no	1	stainless steel	16 left 8 right	aero with variable section	Alu/Alu	100mm
no	1	stainless steel	14 left 14 right	aero with variable section	Alu/Alu	135mm
yes	no	stainless steel	18 radial	aero with variable section	Alu/Alu	100mm
yes	no	stainless steel	7 left 14 right	aero with variable section	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
yes	no	stainless steel	16 radial	aero	Alu/Alu	100mm
yes	no	stainless steel	7 left 14 right	aero	Alu/Alu	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	20 radial	aero with variable section	Alu/Acc	100mm
no	no	stainless steel	8 left 16 right	aero with variable section	Alu/Acc	130mm CAMPA 9/10/11 HG 8/9/10/11
no	no	stainless steel	20 radial	standard 2mm	Alu/Acc	100mm
no	no	stainless steel	8 left 16 right	standard 2mm	Alu/Acc	130mm CAMPA 9/10/11 HG 8/9/10/11

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