



FULCRUM

ENG

www.fulcrumwheels.com



ROAD ROAD 2012

ROAD ROAD ROAD 2012



Outdoor photos: Y. Sunada, M. Ganora

Fulcrum®, 2:1 Two-to-One™, Dynamic Balance™, Racing Torq™, Ultra Torque™, CULT™, Hollow Crank Technology™, 2-Way Fit™, Ultra-Fit™, MoMag™, Red Wind™, Racing Light™, Racing Speed™, Racing Chrono™, Red Carbon™, Red Metal™, Red Fire™, Red Zone™, Red Heat™, AFS™, HH™, are registered Trademarks of Fulcrum Wheels Srl.

* Cronitect® is a registered Trademark of Schaeffler Group



CRANKSETS

- 04 Technology
- 05 RACING TORQ™ RRS
- 06 RACING TORQ™ RS
- 07 RACING TORQ™ R

ROAD WHEELS

- 08 Technology
- 26 RACING ZERO 2-Way Fit™
- 28 RACING 1 2-Way Fit™
- 30 RACING 3 2-Way Fit™
- 34 RACING ZERO
- 36 RACING 1
- 38 RACING 3
- 40 RACING 5
- 42 RACING 7
- 46 RED WIND™ XLR
- 50 RED WIND™ XLR 80 mm
- 54 RED WIND™ XLR 105 mm
- 58 RED WIND™
- 60 RED WIND™ 80 mm
- 64 RACING LIGHT™ XLR
- 66 RACING SPEED™ XLR
- 70 RACING SPEED™ XLR 80
- 74 RACING SPEED™
- 78 RACING CHRONO™

CYCLOCROSS WHEELS

- 82 RED WIND™ XLR CX
- 84 RACING 5 CX
- 86 RACING 7 CX

- 88 Technical data



RACING TORQ™ TECHNOLOGY

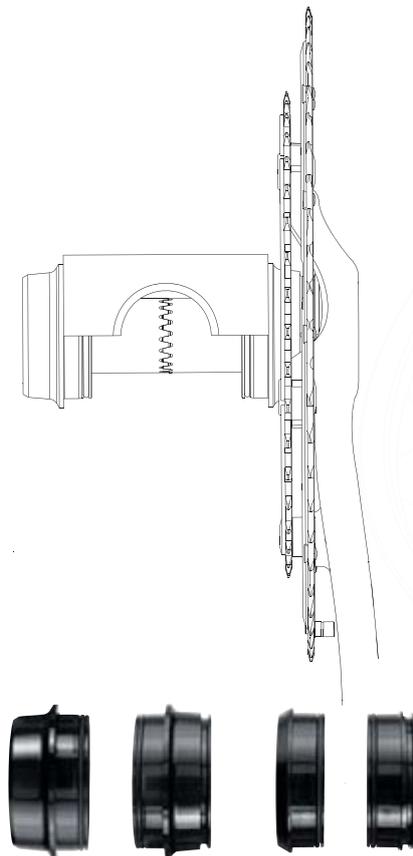
Hirth Joint™

The Fulcrum® Racing Torq™ 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.



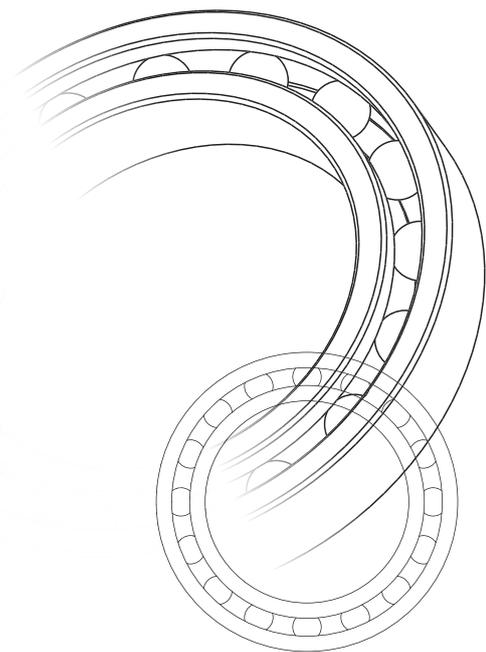
OS-Fit™ Cups

The Ultra Torq™ OS-Fit™ cups by Fulcrum® 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™ crankset. The OS-Fit™ cups simply replace the standard Racing Torq™ cups and have the same bearing seat function. OS-Fit™ 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™ cups.



CULT™

Ceramic Ultimate Level Technology, CULT™. It's the technical advancement adopted for the most revolutionary crankset in the Fulcrum® range, the Racing Torq™ 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® 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™ RRS

Racing Torq™ RRS

There are no compromises in the top of the range crankset in the Fulcrum® series. The use of CULT™ 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™.



Standard

Compact

RACING TORQ™ RRS

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

RACING TORQ™ RS

Compact

Standard



Racing Torq™ RS

Has been conceived for competitive racing at the maximum level and uses Fulcrum® 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.



New Dark version

RACING TORQ™ RS

MODEL	OPTIONS	DESCRIPTION	WEIGHT (g)*
crankset 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
crankset 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
BB outboard cups RACING TORQ™	ITA, ENG	aluminium	49
integrated cups RACING TORQ™ OS-Fit™	86,5x41, BB30	aluminium - integrated cups for oversize shells	29

RACING TORQ™ R

Standard



Compact



Racing Torq™ 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.

RACING TORQ™ R

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

S.H.A.R.C.

No two wheels are alike, and no two riders.

This is why Fulcrum[®], 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.

What does S.H.A.R.C. stand for?

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™ ceramic ball bearings, or the USB™ ceramic ball bearings, or thanks to other technologies applied to the wheel such as 2-Way Fit™.

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

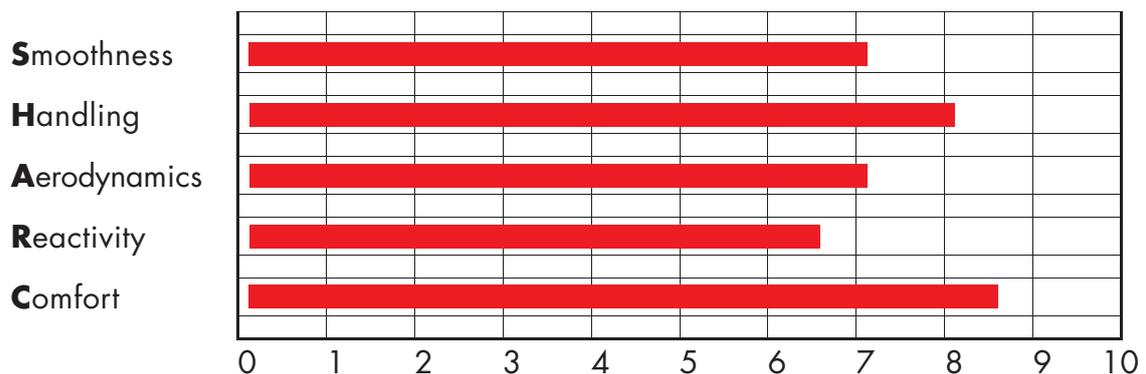
Do you prefer a wheel that can absorb the ruggedness of the terrain or an absolutely rigid wheel with no compromise? It depends on your driving style and your particular needs. The comfort index aims to help you to understand the behaviour of the wheel in the case of roads that are not perfectly smooth,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

Fulcrum[®] 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.

S.H.A.R.C.

	SMOOTHNESS	HANDLING	AERODYNAMICS	REACTIVITY	COMFORT
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 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
RACING 5	7,5	8,5	8,5	7,5	9
RACING 7	7,5	8	8,5	7,5	9
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
CX WHEELS					
RED WIND™ XLR CX	9,5	8	9	7,5	8
RACING 5 CX	7	8,5	8,5	7,5	9
RACING 7 CX	7	8	8,5	7,5	9

S.H.A.R.C.



F.I.C. Fulcrum Identification Card

Right from its inception Fulcrum® 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.



SCAN THE TWO-DIMENSIONAL MATRIX CODE WITH YOUR SMARTPHONE AND DISCOVER HOW YOUR WHEEL HAS BEEN ASSEMBLED, CHECKED AND TESTED.



F.I.C.
FULCRUM
IDENTIFICATION CARD

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.

Tyre burst test

all Fulcrum® wheels are tested at inflation pressures well above those indicated on the tyre.

Environment 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® 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® 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® 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.

FIC FULCRUM IDENTIFICATION CARD

RACING 1

CLUNCHER 2-WAY FIT™

FINAL INSPECTION CHART

	OK
AXIAL AND RADIAL SKID	<input checked="" type="checkbox"/>
HUB CENTERING	<input checked="" type="checkbox"/>
SPOKE TENSION	<input checked="" type="checkbox"/>
AXLE SMOOTHNESS	<input checked="" type="checkbox"/>
AESTHETIC CONTROL	<input checked="" type="checkbox"/>

THIS WHEEL COMPLIES WITH ALL THE ABOVE DESCRIBED TECHNICAL CHARACTERISTICS AND TOLERANCES.

WHEELBUILDER SIGNATURE TRACEABILITY IDENTIFICATION CODE

ALLUMINIUM/CARBON Project

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

Maximum technology has also been applied to this new range of wheels. Fulcrum® 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® 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:

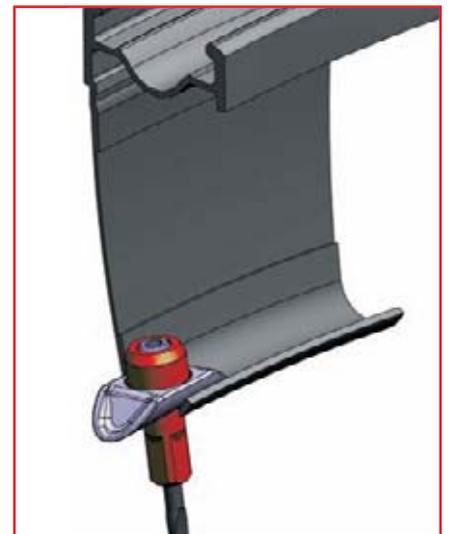
- **Oversize Flange:** the size of right flange of the rear wheel has been designed in order to maximise the transmission of power to the wheel and to increase the tensional rigidity and overall responsiveness of the wheel.



- **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™ 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.



Smoothness

The Fulcrum® wheels have always distinguished themselves for being extremely smooth. The Red Wind™ wheels retain this property thanks to the leading-edge technology of the materials used and the technical solutions that the Fulcrum® 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® 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.



Aerodynamics

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® this is not enough. The Red Wind™ 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.



Weight

Although these are wheels dedicated to fast competitions and time trial, Fulcrum® 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 high-profile 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 too has been designed to minimise weight and, in the XLR version, has been lightened thanks to the use of aluminium.

2-Way Fit™

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™ technology to ensure the perfect compatibility of our tubeless rims with normal clincher types and tubes. 2-Way Fit™ wheels are perfectly multipurpose for tackling every situation.

Thanks to a special impression in the valve area, the tubes are fitted with the maximum precision while keeping the tube perfectly stable inside the tyre. Housing the valve for tubeless tyres is also risk-free, with the unquestionable advantage that there are never any air infiltrations caused by non-ideal positioning when fitting. The advantages are indisputable:

our tests have highlighted an unique increase in smoothness. Because there is no tube, the friction caused by rubbing against the tyre is eliminated, while the perfect adherence of the tyre to the rim prevents the dispersion of energy.

Tubeless tyres do not suffer from sudden deflation when punctured which is a great advantage in safety terms. There is also no risk of snake bites as there is no tube to rupture. What if a tubeless tyre gets punctured? There’s nothing to fear... With Fulcrum® 2-Way Fit™ you can remove the tubeless valve and fit in a standard clincher tyre that will let you ride back home.



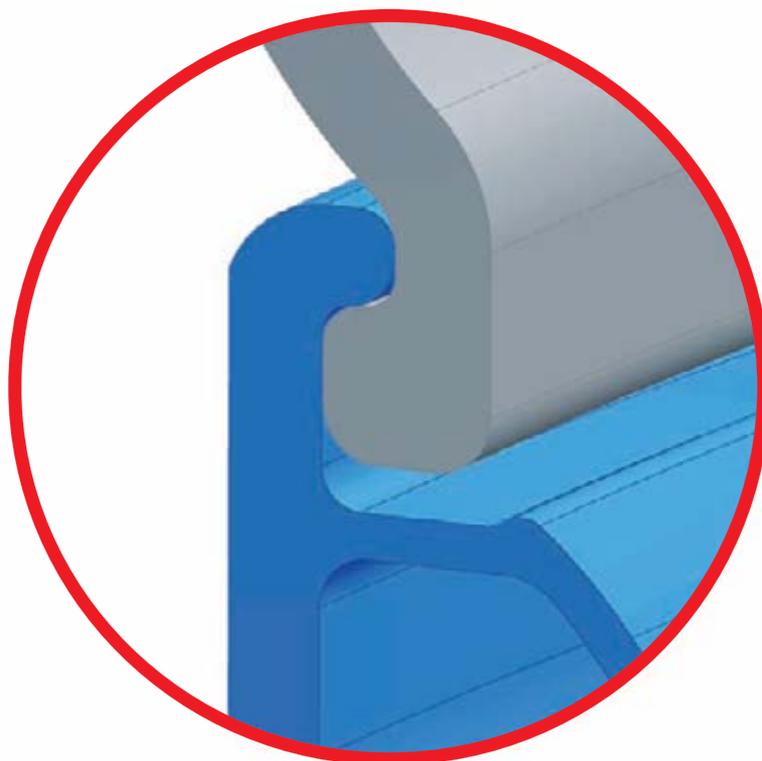
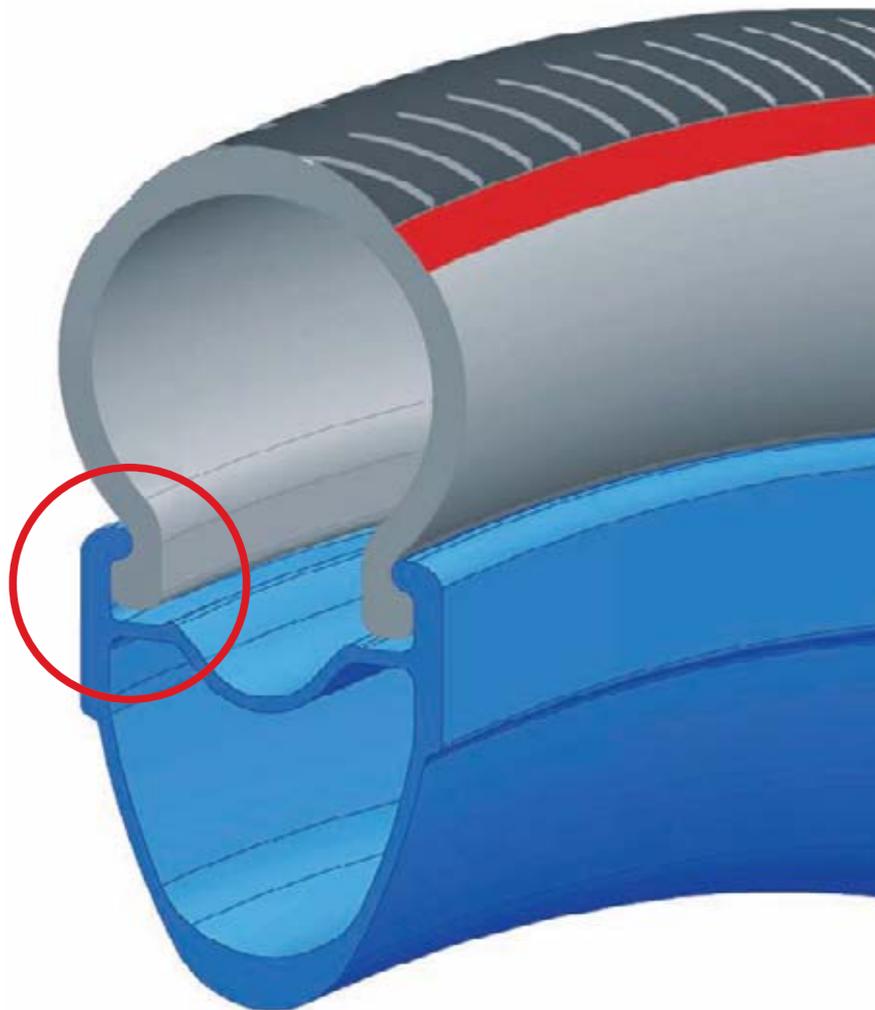
Ultra-Fit™

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™ Tubeless wheels will 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.



MoMag™

MoMag™

What is MoMag™?

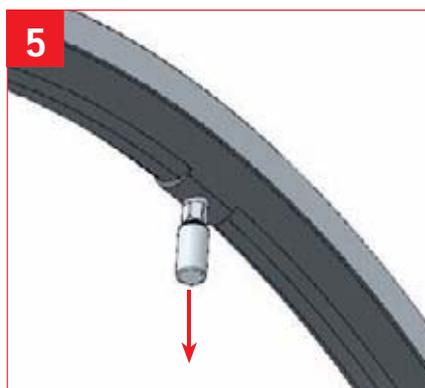
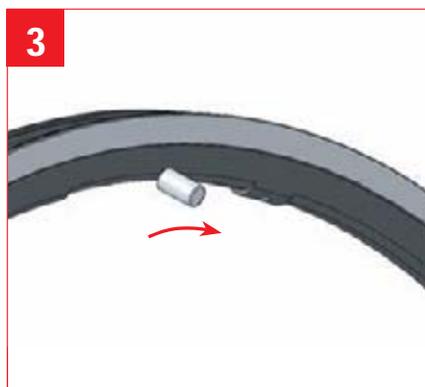
A magnet and lots of ingenuity.

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

How does it work? The nipples, once inserted inside the rim via the valve hole, are "guided" to the point of connection with the spoke by means of the magnet.

This simple but ingenious system makes it possible to have a wheel without holes on the upper bridge, but with spokes tensioned by traditional nipples!

Advantages: 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, and greater stiffness which, 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®.



RDB™ Rim Dynamic Balance

Dynamic Balance™

Aluminium rims

The concept is simple and elegant: balance the weight of the gasket, with an item of similar weight placed on the exact opposite side. For top models, this is obtained by a special operation on the section of the rim opposite the rim joint.

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

RIM Dynamic Balance™

Carbon Wheels

For carbon wheels the principle is the same, but applied using a different technology. When making carbon rims, the pieces of carbon fabric are aligned in such a manner that the resulting rim is always balanced.



Brake pads

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.



Anti Rotation System

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

The Fulcrum® engineers have redesigned the spokes and the hub housings to create a solid and 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.



2:1 Two-to-One™ Spoke Ratio

When you push on the pedals, the rotational force on the sprocket induces a slackening of the freewheel spokes with a consequent loss of rim tension. This results in undesirable flex of the whole wheel and an unavoidable loss of energy. Fulcrum® has solved this classic cycling problem with its 2:1 Two-to-One™ Spoke Ratio patent, by doubling the spokes in the critical zones.

As a result there are two spokes which carry out the function of one, slackening and torsion are limited and the transfer of the athlete's power is much more effective.

Also, thanks to this system, spoke tensions are balanced more evenly between drive and non-drive sides and the fatigue life of the rim, hub and spokes is lengthened.



CULT™

CULT™: Ceramic Ultimate Level Technology™

Behind this project is the exclusiveness of Cronitect® 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™ ball bearings continues its motion for a full 45 minutes, i.e. nine times longer than standard bearings.

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



CERAMIC ULTIMATE LEVEL TECHNOLOGY
MAXIMUM SMOOTHNESS FOR MAXIMUM PERFORMANCE

USB™

Ceramic Ultra Smooth Bearings™

Fulcrum® 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™ 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.



Quick Release

What is the Fulcrum® Quick Release?

The Fulcrum 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 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® 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. Starting from the 2012 range, for the Red Wind™ XLR family and for all the high-profile wheels, Fulcrum® presents the brand new aerodynamic quick releases.

The mechanics and the design are those of the well-tested Fulcrum® patent, and the lever has been designed for the maximum aerodynamic penetration.

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 time perfect closure of 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.



QUICK RELEASE



2-Way Fit™ WHEELS			
RACING ZERO			•
RACING 1			•
RACING 3			•
CLINCHER/TUBULAR WHEELS			
RACING ZERO			•
RACING 1			•
RACING 3		•	
RACING 5	•		
RACING 7	•		
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™			•
CX WHEELS			
RED WIND™ XLR CX			•
RACING 5 CX	•		
RACING 7 CX	•		





2-Way Fit™

RACING ZERO 2-WAY FIT™

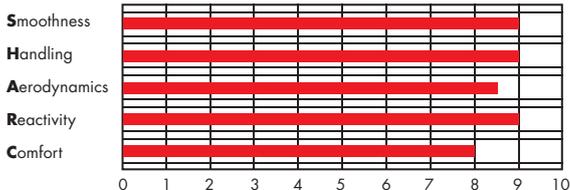


The Racing Zero wheelset is the absolute top of the category of aluminium wheels. All of our technology available today is concentrated in the Zero 2-Way Fit™ version: rim with Ultra-Fit™ profile with triple milling and completely sealed thanks to the exclusive MoMag™ technology, ceramic ball bearings, and 2:1 spoke doubling. Personality and performance in a class by itself: **it's your turn to fly with the Zero.**



S.H.A.R.C.

Total weight: 1460 g



RIM

- **2-Way Fit™ profile:** allows you to choose to use the classic clincher or the innovative tubeless.
- **Ultra-Fit™:** the patented rim profile ensures safe fitting of the tubeless tire.
- **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.
- **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.

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.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.

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 smoothness, reduce weight and maintain performance over time, thanks to the absence of corrosion.
- **Aluminium axle:** reduces the overall weight of the wheel.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

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.

RACING 1 2-WAY FIT™

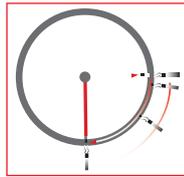
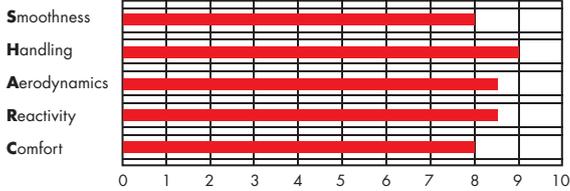


Beneath the elegance of the black coloring of the rim and spokes lies the sporty heart of the Racing 1 2-Way Fit™. In competition or in everyday training, **the Racing 1** with profile for Tubeless tires or clinchers **is sure to bring you excitement.**



S.H.A.R.C.

Total weight: 1505 g

**RIM**

- **2-Way Fit™ profile:** allows you to choose to use the classic clincher or the innovative tubeless.
- **Ultra-Fit™:** the patented rim profile ensures safe fitting of the tubeless tire.
- **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.
- **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.

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.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.

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.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

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.

RACING 3 2-WAY FIT™



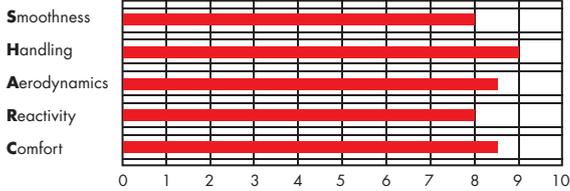
Less than 1600 grams for the entry level wheel of the 2-Way Fit™ family: extremely low weight for a wheel with a decidedly aggressive price.

Reactive, extremely components from the Racing solid, and featuring the technical 1 and Racing Zero, the Racing 3 2-Way Fit™ is confirmed as the wheel that satisfies all two-wheel enthusiasts.



S.H.A.R.C.

Total weight: 1595 g



RIM

- **2-Way Fit™ profile:** allows you to choose to use the classic clincher or the innovative tubeless.
- **Ultra-Fit™:** the patented rim profile ensures safe fitting of the tubeless tire.
- **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.
- **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.

SPOKES

- **Double-buttressed steel spokes with aero profile:** enable maximum aerodynamic penetration.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.



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.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.



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.





Clincher & Tubular



RACING ZERO CLINCHER/TUBULAR

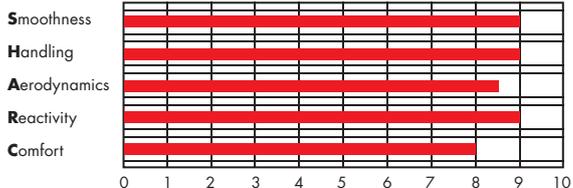
Unrivaled in the peloton: extraordinary performance and high impact aesthetics make this wheel the point of reference for cyclists. Race after race, "Zero" wheels have become synonymous with excellence, quality, performance, reliability... and victory! The Patented technical solutions, the materials used and the wheel geometries make it the ideal partner for competition. **The Racing Zero clinchers are now also available in the "Dark Label" version.**



Rear wheel "Dark Label"



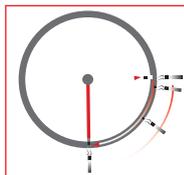
Front wheel "Bright Label"

S.H.A.R.C.

Total weight: 1430 g



Rear wheel "Bright Label"

**RIM**

- **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.
- **High precision processing of the rim:** allows to obtain a perfectly even structure and to remove tension areas in the rim.
- **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.

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.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.

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 smoothness, reduce weight and maintain performance over time, thanks to the absence of corrosion.
- **Aluminium axle:** reduces the overall weight of the wheel.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

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.

RACING 1 CLINCHER

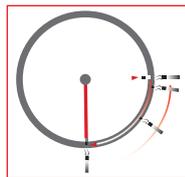
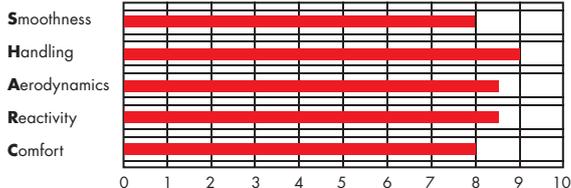
Lightweight and high performance in any conditions, with an extremely aggressive look.

It could only be a wheel that has competition in its DNA: reactive when called upon but at the same time comfortable even after many hours on the saddle. Racing 1 gives the right sensation in all conditions.



S.H.A.R.C.

Total weight: 1485 g



RIM

- **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.
- **High precision processing of the rim:** allows to obtain a perfectly even structure and to remove tension areas in the rim.
- **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.

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.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.

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.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

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.

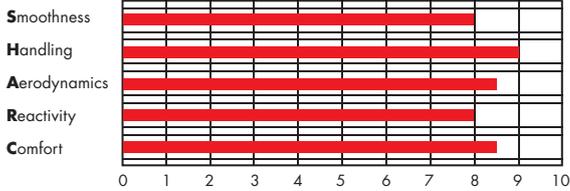
RACING 3 CLINCHER

The advantage is in the rim: no holes and therefore no rim tape, to the benefit of both stiffness and weight. The Racing 3 continues to represent the most reliable “travelling companion” for training rides and the “ideal partner” for any type of race.



S.H.A.R.C.

Total weight: 1555 g



RIM

- **Milled rim:** this machining makes it possible to reduce the peripheral weight of the rim and makes the wheel extremely reactive.
- **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.
- **Differentiated rim height:** 26mm at the front for optimal manoeuvrability; 30mm at the back to transfer all the power to the wheel.

SPOKES

- **Double-butt steel spokes with aero profile:** enable maximum aerodynamic penetration.
- **Spokes anti-rotation System™:** keeps the spokes consistently 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.

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.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

QUICK RELEASE

- **New, completely redesigned and lighter 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.

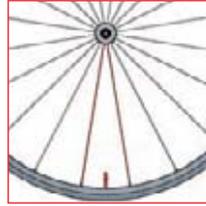
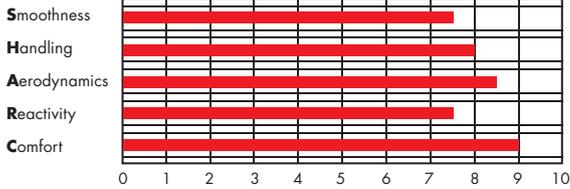
RACING 5 CLINCHER

Designed for a long service life, perfect for everyday use: a Racing 5 wheelset is the ideal companion for your training. Racing 5 wheels are the best example of how accumulated experience with the pros is effectively transferred into mid-range wheels. Excellent technical performance along with a high impact aggressive look: the Racing 5 clincher is the perfect choice for those who seek a winning price/performance ratio.



S.H.A.R.C.

Total weight: 1760 g



■ RIM

- **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.

- **Rim with reinforcing eyelets:** enables greater spoke tension thanks to the orientation of the spokes with the hub.

■ SPOKES

- **Double-butted steel spokes with aero profile:** enable 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.

■ HUB

- **Oversized hubs:** increase wheel stiffness and reactivity.

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

■ 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.

RACING 7 CLINCHER

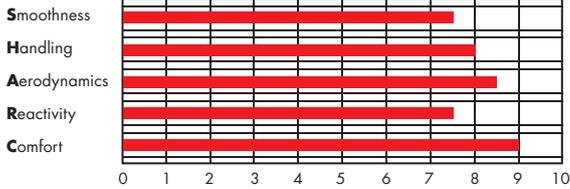
■ The entry level wheelset of the Fulcrum® range does not forego quality and reliability.

Manual wheel assembly and controls carried out on 100% of all Fulcrum® wheels raise the standard of the Racing 7 to that of its "big brothers". Because for Fulcrum® every cyclist is a champion!



S.H.A.R.C.

Total weight: 1849 g



■ 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.
- **Rim with oriented drilling of spoke seat:** makes it possible to orient the spokes and increase the tensions.

■ SPOKES

- **Steel spokes with 2mm cross-section:** provide high levels of tension and stiffness.
- **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.

■ HUB

- **Superior quality steel balls on sealed cylindrical bearings:** reduce friction and ensure consistent performance over time.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.

■ 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 WIND™ XLR 2-WAY FIT™/CLINCHER

Simply extraordinary.

Two-wheel enthusiasts were waiting for the Fulcrum® “aluminium/carbon” wheels and the wait has been rewarded. Indeed the Red Wind™ 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™ fastening system (Directional Rim-Spoke Coupling) give the wheel incredible responsiveness. Available in the Dark Label and Bright Label version.

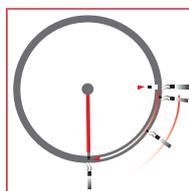
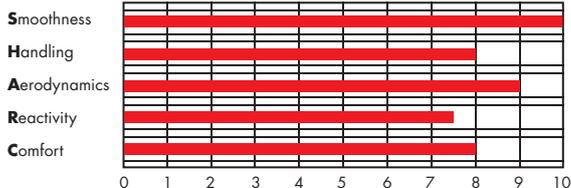
BRIGHT LABEL



FRONT AND REAR HUB FOR RED WIND™ XLR BRIGHT LABEL

S.H.A.R.C.

Total weight: 1590 g



RIM

- **Rim profile option:** it allows to choose the profile that best suits your needs:
 1. **Clincher:** it allows to use the traditional clincher.
 2. **2-Way Fit™ profile:** allows you to use either the classic clincher or the innovative tubeless tire. Ultra-Fit™ rim profile.
- **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.
- **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.

SPOKES

- **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.
- **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™ (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.



RED WIND™ XLR 2-WAY FIT™/CLINCHER

DARK LABEL





■ 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.
- **Cup and cone bearings:** easy ball/bearing adjustment – reduces possible ball/bearing 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.

■ 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™ XLR 80 mm 2-WAY FIT™/CLINCHER

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® allows you to configure your Red Wind™ XLR 80 according to your preferences. Discover them.

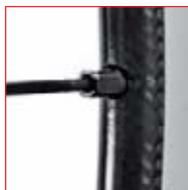
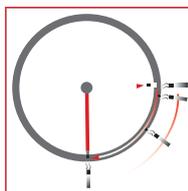
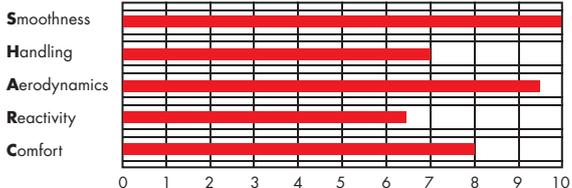
BRIGHT LABEL



FRONT AND REAR HUB FOR RED WIND™ XLR BRIGHT LABEL

S.H.A.R.C.

Total weight: 1770 g



RIM

- **Rim profile option:** it allows to choose the profile that best suits your needs:
 1. **Clincher:** it allows to use the traditional clincher.
 2. **2-Way Fit™ profile:** allows you to use either the classic clincher or the innovative tubeless tire. Ultra-Fit™ rim profile.
- **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.
- **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.

SPOKES

- **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.
- **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™ (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.

RED WIND™ XLR 80 mm 2-WAY FIT™/CLINCHER

DARK LABEL





■ 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.
- **Cup and cone bearings:**
easy ball/bearing adjustment – reduces possible ball/bearing 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.

■ 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™ XLR 105 mm 2-WAY FIT™/CLINCHER

"...Today I want to fly..."

You decide to prepare the bike with two 105mm wheels or you choose the lens profile for the rear or even use the 105 at the rear with a fantastic 50 or 80mm at the front. No matter you choice, no matter the race, today Fulcrum® is at your side with the brand new aggressive Red Wind™ 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.

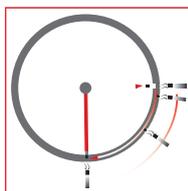
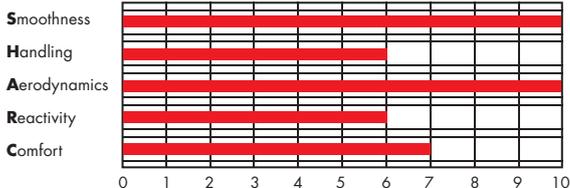
BRIGHT LABEL



FRONT AND REAR HUB FOR RED WIND™ XLR BRIGHT LABEL

S.H.A.R.C.

Total weight: 1960 g



RIM

- **Rim profile option:** it allows to choose the profile that best suits your needs:
 1. **Clincher:** it allows to use the traditional clincher
 2. **2-Way Fit™ profile:** allows you to use either the classic clincher or the innovative tubeless tire. Ultra-Fit™ rim profile.
- **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.
- **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.

SPOKES

- **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.
- **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™ (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.



RED WIND™ XLR 105 mm 2-WAY FIT™/CLINCHER

DARK LABEL





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.
- **Cup and cone bearings:**
easy ball/bearing adjustment – reduces possible ball/bearing 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

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™ CLINCHER

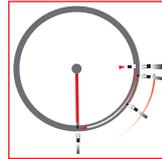
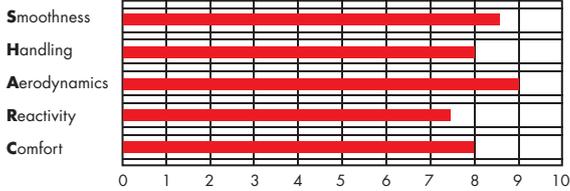
Swift as the wind.

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™ 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.



S.H.A.R.C.

Total weight: 1755 g

**RIM**

- **Aluminium profile for clinchers:** it allows to use the traditional clincher.
- **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.
- **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.

SPOKES

- **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.
- **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™ (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.
- **2 different ball/bearings options:** it allows to configure the wheel according to your needs:
 1. top quality standard bearings
 2. USB™ ceramic balls

QUICK RELEASE

- **New, completely redesigned and lighter 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™ 80 mm CLINCHER

Experience the sensation of being pushed by the wind.

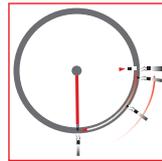
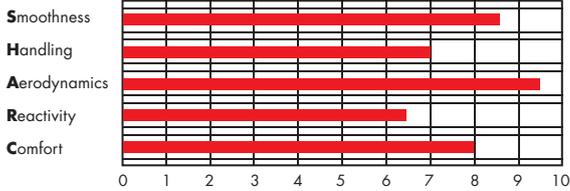
Red Wind™ 80 are built to glide in the air and to cycle even faster when the wind is blowing sideways up to 20° with respect to your direction. It seems impossible, but research conducted in the wind tunnel allowed us to design the shape of the rim until we found the one that can “push you” when your fellow riders feel the wind in their face.

The Red Wind™ have victory built into their DNA.



S.H.A.R.C.

Total weight: 1930 g



RIM

- **Aluminium profile for clinchers:** it allows to use the traditional clincher.
- **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.
- **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.

SPOKES

- **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.
- **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™ (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.
- **2 different ball/bearings options:** it allows to configure the wheel according to your needs:
 1. top quality standard bearings
 2. USB™ ceramic balls

QUICK RELEASE

- **New, completely redesigned and lighter 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.





Carbon

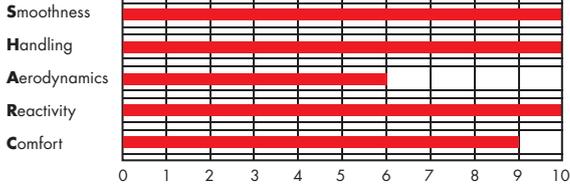


RACING LIGHT™ XLR CLINCHER/TUBULAR

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™ technology assure the maximum smoothness, unaltered over time.



S.H.A.R.C.



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.
- **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.
- **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.

SPOKES

- **Aerodynamic profile in steel:** ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
- **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.

HUB

- **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™ steel. CULT™ 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 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.

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™ XLR TUBULAR

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™ XLR the winner is you. Light, reactive, and smooth: Racing Speed™ XLR represents the maximum level of technology available and the best choice for finishing ahead of the pack.

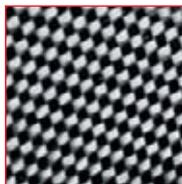
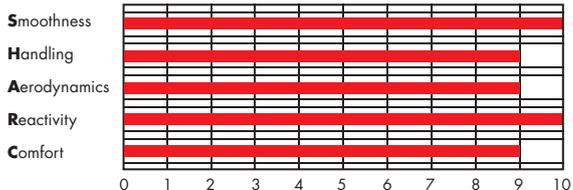
The Racing Speed™ XLR are now also available in the “Dark Label” version.

BRIGHT LABEL



S.H.A.R.C.

Total weight: 1324 g



RIM

- **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.

- **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.

- **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.

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.

- **Rear:** 21 aero spokes in stainless steel with variable cross-section, doubled on the drive side (Two-to-One™).

- **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.

Technologies: CULT™ · Full Carbon Rim · 2:1 Two-to-One™

RACING SPEED™ XLR TUBULAR

DARK LABEL





■ HUB

- **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™ steel. CULT™ 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 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.

■ 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™ XLR 80 TUBULAR

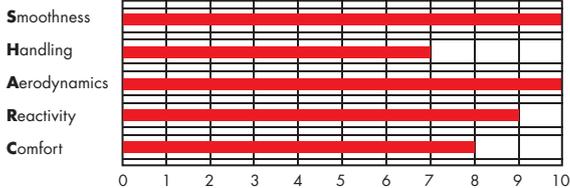
Performances over the top. The brand new Racing Speed™ XLR with carbon rim for 80mm clinchers are been designed in our wind tunnel and developed with the precious indications of professional athletes. The result is extraordinary. The aerodynamic design allows for top speed, acceleration and manoeuvrability even with cross winds; the smoothness levels exceed expectations: the CULT ball/bearing system is 9 times smoother than that of standard bearings! But the Racing Speed™ XLR does not need an introduction: a name which has been long associated with countless victories and today becomes the wheel of reference for triathlon or road races.

BRIGHT LABEL



S.H.A.R.C.

Total weight: 1540 g



RIM

- **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.
- **Full carbon:** extremely limited weight. Gives the wheel an extremely high level of lateral stiffness and greater reactivity.
- **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.
- **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.

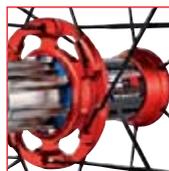
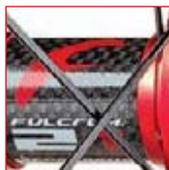
SPOKES

- **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.
- **Rear:** 18 aero spokes in stainless steel with variable cross-section, doubled on the drive side (Two-to-One™).
- **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.

RACING SPEED™ XLR 80 TUBULAR

DARK LABEL





■ HUB

- **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™ steel. CULT™ 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 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.

■ 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™ TUBULAR

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.

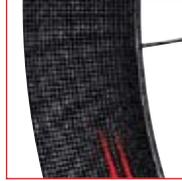
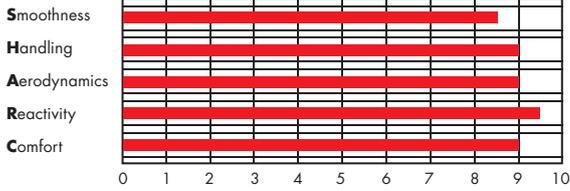
The Racing Speed™ are now also available in the Dark Label version.

BRIGHT LABEL



S.H.A.R.C.

Total weight: 1360 g



RIM

- **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.
- **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.
- **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.

SPOKES

- **Aerodynamic profile in steel:** ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
- **Spokes anti-rotation System™:** enables the spokes to maintain the best aerodynamic position.
- **Front:** 18 aero spokes, radially laced in stainless steel with variable cross-section.
- **Rear:** 21 aero spokes in stainless steel with variable cross-section, doubled on the drive side (Two-to-One™).
- **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.

RACING SPEED™ TUBULAR

DARK LABEL





HUB

- **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/bearing play – precision operation – maintains performance over time.
- **Aluminium axle:**
reduces the overall weight of the wheel.

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 CHRONO™ TUBULAR

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® R&D Department.

The "tensile structure" design is optimised to make the **Racing Chrono™ extremely rigid and guarantee the maximum aerodynamic penetration.**



1010 g

■ RIM

- Rim in aluminium for tubular tires.

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

■ HUB

- **Ball bearings with CULT™ technology:** the combination between the highest quality ceramic balls and bearings in special Cronitec™ steel. CULT™ 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 time.

- **Aluminium axle:** reduces the overall weight of the wheel.

- **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.







Cyclocross Wheels



RED WIND™ XLR CX CLINCHER

To win in the mud, sand and rain, you must have wheels with specific features.

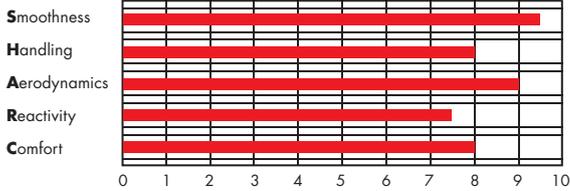
And in a constantly developing discipline such as cyclocross, Fulcrum® definitely doesn't want to stand by and wait.

The Red Wind™, 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.



S.H.A.R.C.

Total weight: 1610 g



RIM

- **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.
- **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.
- **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.

SPOKES

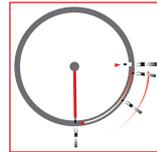
- **Aerodynamic profile in steel:** ensuring the maximum aerodynamic penetration and, thanks to the material employed, lower weight and greater reactivity.
- **Spokes anti-rotation System™:** keeps the spokes in the position of maximum aerodynamic penetration.
- **2:1 Two-to-One™:** on the rear wheel 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™ (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.

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.
- **Top quality industrial bearings with adjustment system:** maximum smoothness and a long-life performance.
- **Double gasket:** protects the ball bearing seats from water and mud, ensures consistent performance over time.
- **Aluminium axle:** it reduces the overall weight.

QUICK RELEASE

- **New, completely redesigned and lighter aerodynamic-profile wheel block:** steel spine and eccentric, lever with drill lightening and aluminum die.



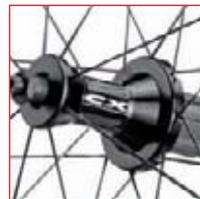
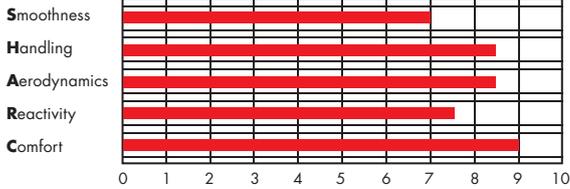
RACING 5 CX CLINCHER

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.



S.H.A.R.C.

Total weight: 1760 g



■ RIM

- **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.

- **Rim with reinforcing eyelets:**
Enables greater spoke tension thanks to the orientation of the spokes with the hub.

■ SPOKES

- **Double-butted steel spokes with aero profile:**
enable 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.

■ HUB

- **Oversized hubs:**
increase wheel stiffness and reactivity.

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

- **Double gasket:**
protects the ball bearing seats from water and mud, ensures consistent performance over time.

■ 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.

RACING 7 CX CLINCHER

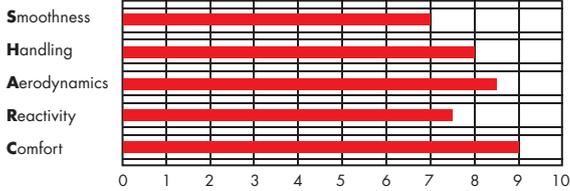
At first sight they might look like road wheels...but they are not!

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.



S.H.A.R.C.

Total weight: 1849 g



■ RIM

- **Maximum compatibility:** the profile of the rim can hold up to 35mm clinchers.
- **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.

■ SPOKES

- **Steel spokes with 2mm cross-section:** provide high levels of tension and stiffness.
- **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.

■ HUB

- **Superior quality steel balls on sealed cylindrical bearings :** reduce friction and ensure consistent performance over time.
- **Oversized flange on the drive side:** provides greater torsional stiffness, increases reactivity at each change in rhythm of the pedal stroke.
- **Double gasket:** protects the ball bearing seats from water and mud, ensures consistent performance over time.

■ 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.



	Racing Zero 2-Way Fit™		Racing 1 2-Way Fit™		Racing 3 2-Way Fit™		Racing Zero	
	RACING ZERO 2-Way Fit™ front	RACING ZERO 2-Way Fit™ rear	RACING 1 2-Way Fit™ front	RACING 1 2-Way Fit™ rear	RACING 3 2-Way Fit™ front	RACING 3 2-Way Fit™ rear	RACING ZERO clincher front	RACING ZERO clincher rear
Weight*	625	835	645	860	680	915	610	825
nominal and ETRTO width	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15
CULT™/USB™ bearings	U	U	no	no	no	no	U	U
Dynamic Balance (R=rim; S=spokes)	R	R	R	R	R	R	R	R
spoke anti-rotation system	no	no	no	no	yes	yes	no	no
machining	3	3	3	3	1	1	3	3
spoke material	aluminium	aluminium	aluminium	aluminium	stainless steel	stainless steel	aluminium	aluminium
number of spokes	16 radial	7 left 14 right	16 radial	7 left 14 right	16 radial	7 left 14 right	16 radial	7 left 14 right
type of spokes	ultra aero with variable section	ultra aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section
HUB material (body/axle)	Carb/Alu/ Alu	Carb/Alu/ Alu	Alu/ Alu	Alu/ Alu	Alu/ Alu	Alu/ Alu	Carb/Alu/ Alu	Carb/Alu/ Alu
compatibility	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10

* Average weight - does not include the quick-release and the rim-tape and it refers to the Campagnolo® FW body version.

Racing Zero		Racing 1		Racing 3		Racing 5		Racing 7	
<i>RACING ZERO tub. front</i>	<i>RACING ZERO tub. rear</i>	<i>RACING 1 clincher front</i>	<i>RACING 1 clincher rear</i>	<i>RACING 3 clincher front</i>	<i>RACING 3 clincher rear</i>	<i>RACING 5 clincher front</i>	<i>RACING 5 clincher rear</i>	<i>RACING 7 clincher front</i>	<i>RACING 7 clincher rear</i>
615	815	635	850	670	885	775	985	828	1021
20/-	20/-	20/15	20/15	20/15	20/15	20/15	20/15	20/15	20/15
U	U	no	no	no	no	no	no	no	no
R	R	R	R	R	R	S	S	no	no
no	no	no	no	no	no	no	no	no	no
3	3	3	3	1	1	no	no	no	no
aluminium	aluminium	aluminium	aluminium	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
16 radial	7 left 14 right	16 radial	7 left 14 right	16 radial	7 left 14 right	20 radial	8 left 16 right	20 radial	8 left 16 right
aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero	aero	aero with variable section	aero with variable section	standard 2mm	standard 2mm
Carb/Alu/Alu	Carb/Alu/Alu	Alu/Alu	Alu/Alu	Alu/Alu	Alu/Alu	Alu/Steel	Alu/Steel	Alu/Steel	Alu/Steel
100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10



Racing Light XLR

Racing Speed XLR / Racing Speed

	RACING LIGHT™ XLR clincher front	RACING LIGHT™ XLR clincher rear	RACING LIGHT™ XLR tub. front	RACING LIGHT™ XLR tub. rear	RACING SPEED™ XLR tub. front	RACING SPEED™ XLR tub. rear	RACING SPEED™ XLR 80 tub. front	RACING SPEED™ XLR 80 tub. rear	RACING SPEED™ tub. front	RACING SPEED™ tub. rear	RED WIND XLR™ front clincher / 2WF	RED WIND XLR™ rear clincher / 2WF
Weight*	595	750	546	680	577	747	715	825	590	770	727	863
nominal and ETRTO width	20,5/13	20,5/13	20/-	20/-	20/-	20/-	20/-	20/-	20/-	20/-	20,5/15	20,5/15
Steel/CULT™/USB™ bearings	C	C	C	C	C	C	C	C	S	S	S/U/C	S/U/C
Dynamic Balance (R=rim; S=spokes)	R	R	R	R	R	R	R	R	R	R	R	R
spoke anti-rotation system	no	no	no	no	no	no	no	no	yes	yes	yes	yes
machining	no	no	no	no	no	no	no	no	no	no	no	no
spoke material	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
number of spokes	22 radial	8 left 16 right	22 radial	8 left 16 right	18 radial	7 left 14 right	16 radial	6 left 12 right	18 radial	7 left 14 right	16 radial	7 left 14 right
type of spokes	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section
HUB material (body/axle)	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	carb-alu/Alu	alu/alu	alu/alu
compatibility	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10	100mm	130mm CAMPA 9/10/11 HG 8/9/10

Red Wind XLR / Red Wind / Red Wind XLR CX										Chrono	Racing 5 CX		Racing 7 CX	
RED WIND XLR™ 80 front clincher / 2WF	RED WIND XLR™ 80 rear clincher / 2WF	RED WIND XLR™ 105 front clincher / 2WF	RED WIND XLR™ 105 rear clincher / 2WF	RED WIND™ clincher front	RED WIND™ clincher rear	RED WIND™ 80 clincher front	RED WIND™ 80 clincher rear	RED WIND XLR™ CX clincher front	RED WIND XLR™ CX clincher rear	RACING CHRONO™ tub. rear	RACING 5 CX clincher front	RACING 5 CX clincher rear	RACING 7 CX clincher front	RACING 7 CX clincher rear
815	955	910	1050	785	970	865	1065	737	873	1010	775	985	828	1021
20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	20,5/15	19/-	20/15	20/15	20/15	20/15
S/U/C	S/U/C	S/U/C	S/U/C	S/U	S/U	S/U	S/U	S/U/C	S/U/C	C	no	no	no	no
R	R	R	R	R	R	R	R	R	R	no	S	S	no	no
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no
no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	-	stainless steel	stainless steel	stainless steel	stainless steel
16 radial	6 left 12 right	16 radial	6 left 12 right	18 radial	7 left 14 right	16 radial	6 left 12 right	18 radial	7 left 14 right	-	20 radial	8 left 16 right	20 radial	8 left 16 right
aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	aero with variable section	disc	aero with variable section	aero with variable section	standard 2mm	standard 2mm
alu/alu	alu/alu	alu/alu	alu/alu	alu/acc	alu/acc	alu/acc	alu/acc	alu/alu	alu/alu	Alu/Alu	Alu/Acc	Alu/Acc	Alu/Acc	Alu/Acc
100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10	132mm CAMP 9V	100mm	130mm CAMP 9/10/11 HG 8/9/10	100mm	130mm CAMP 9/10/11 HG 8/9/10