WILIER SLR ZERO

# TECH FEATURES

REV.01

After its top Zero.7 and Zero.6 models, Wilier Triestina is taking another step forward in its technological and stylistic innovation process, adding **Zero SLR** to its racing range of products designed to scale even the steepest slopes. **ZERO SLR** is the first ultra-lightweight racing frame with disc brakes and fully integrated cables.

This document is a guide to understanding the highest evolved product in **Wilier Triestina**'s history: a frame that's elegant, minimalist and even simple. At the same time, it is extremely technologically complex, the result of years of research and experimentation at our Innovation Lab.

**Zero SLR** synthesizes the concepts of lightness and total integration in a single frame. We included all the features desired by the most demanding cyclists in the most technologically advanced racing bikes: braking performance with disc brakes, electronic transmission, high aerodynamics, high-speed stability and control, and full cable integration.

# FORK

Even the fork is much lighter, weighing just 340 grams, again in the matte black / white version.

We have given the fork an asymmetric shape: its blades have different sections, as it can clearly be seen if you look at the **Zero SLR** head on.

We reinforced the blade housing the brake caliper with a wider section than the other tube to ensure the fork is able to balance the asymmetrical forces generated by disc braking, while maintaining excellent handling even during braking.

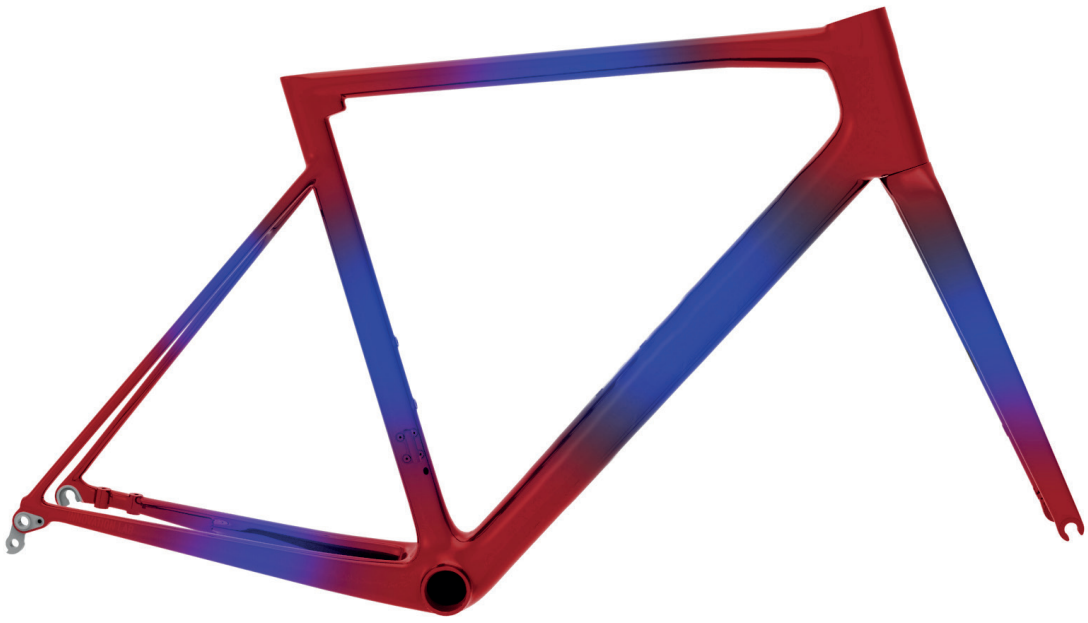

To improve aerodynamics, we increased the distance between the fork blades and the wheel, something we learned when developing our **Wilier Turbine** triathlon and time trial bikes. This reduces the turbulence generated by the wheel and the frame when in motion, and improves aerodynamic penetration.

# FEATURES OF THE FIBRES USED

Our recipe for a monocoque frame is secret, as are the ingredients that go into the carbon layers.

For the **ZERO SLR** we selected the highest quality fibers, calling the blend **HUS-MOD**: this composition is qualitatively superior to any previous type of material used by Wilier Triestina.

In addition to the **HUS-MOD** carbon, we also included a highly resistant multi-directional fibre mesh to increase rigidity in every direction and **Liquid Crystal Polymer** woven to improve impact resistance and vibration absorption.



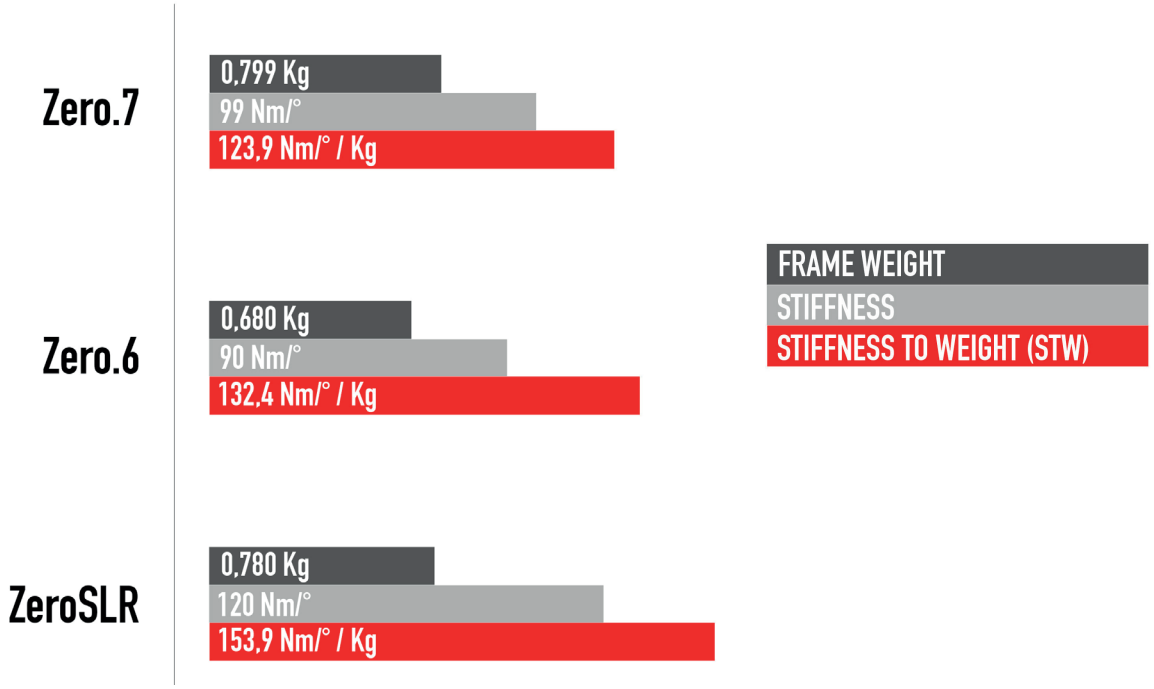
# STIFFNESS TO WEIGHT

A frame's STW (stiffness to weight) is the ratio of torsional stiffness to weight:

**STW (Nm/° / kg) =**
**torsional stiffness (Nm/°) / frame weight (kg)**

In carbon frames, high **STW** values are synonymous with performance, so it's easy to understand that high torsional stiffness values or low weight values are winning characteristics when it comes to quality.

Most of the time, we tend to add material to increase a frame's stiffness, thus increasing its weight. But, when you want to reduce the weight, you run the risk of compromising stiffness and consequently handling and handling safety.




On the **ZERO SLR**, thanks to the blend of carbons, the unique positioning of the fibers and the construction technology, we have succeeded in attaining the highest level of both lightness and stiffness, exceeding the **STW** value of our previous **Zero.7** and **Zero.6** models by **24%**.

# INTEGRATED ZERO HANDLEBAR

One of the trends most highly appreciated by bicycle manufacturers and by the public at large is the search for extreme clean lines. Already in 2016, Wilier Triestina started down this road with **Cento10AIR** (we were one of the first bike manufacturers worldwide to do this), inserting the brake cables and shifter cables inside the monocoque handlebar integrated in the frame.

With the **Zero SLR**, we've gone even further, pairing total integration with the lightest frame, fork and handlebar ever. We re-engineered and evolved all the elements to allow integration: the Zero integrated handlebar, composite handlebar spacers and the section of the frame head tube. Let's examine them below in detail.


In addition to being very lightweight, (330 grams for the 100x42 size) the new integrated **Zero** carbon monocoque handlebar houses the brake and shifter cables, directing them toward the inside of the frame.

It has a **very simple design** with rounded lines for **maximum grip ergonomic**s.

The head tube design combined with the special bearing size allows the transmission and shifter cables to slide inside the frame when they arrive from the cavity of the carbon monocoque handlebar. The down tube has no holes to insert the cables, so they must slide inside. We made this choice to preserve weight, integrity, rigidity and to accentuate the minimalist style our designers sought in the design phase.

# SPACERS

The spacers between the frame head tube and the handlebar are made of a high-rigidity composite material, with a special cavity for to the cables. Their shape is composed of two parts for quick assembly and disassembly without interfering with the cables running from the handlebar to the frame.

**The individual spacers can simply be adjusted to modify the height of the handlebar or for maintenance, with no need to remove the cables or the handlebar itself.**

Although the spacer can be disassembled, when it is coupled and inserted between the frame and the handlebar, it behaves like a carbon monolith, giving the cyclist a sensation of total integrity.

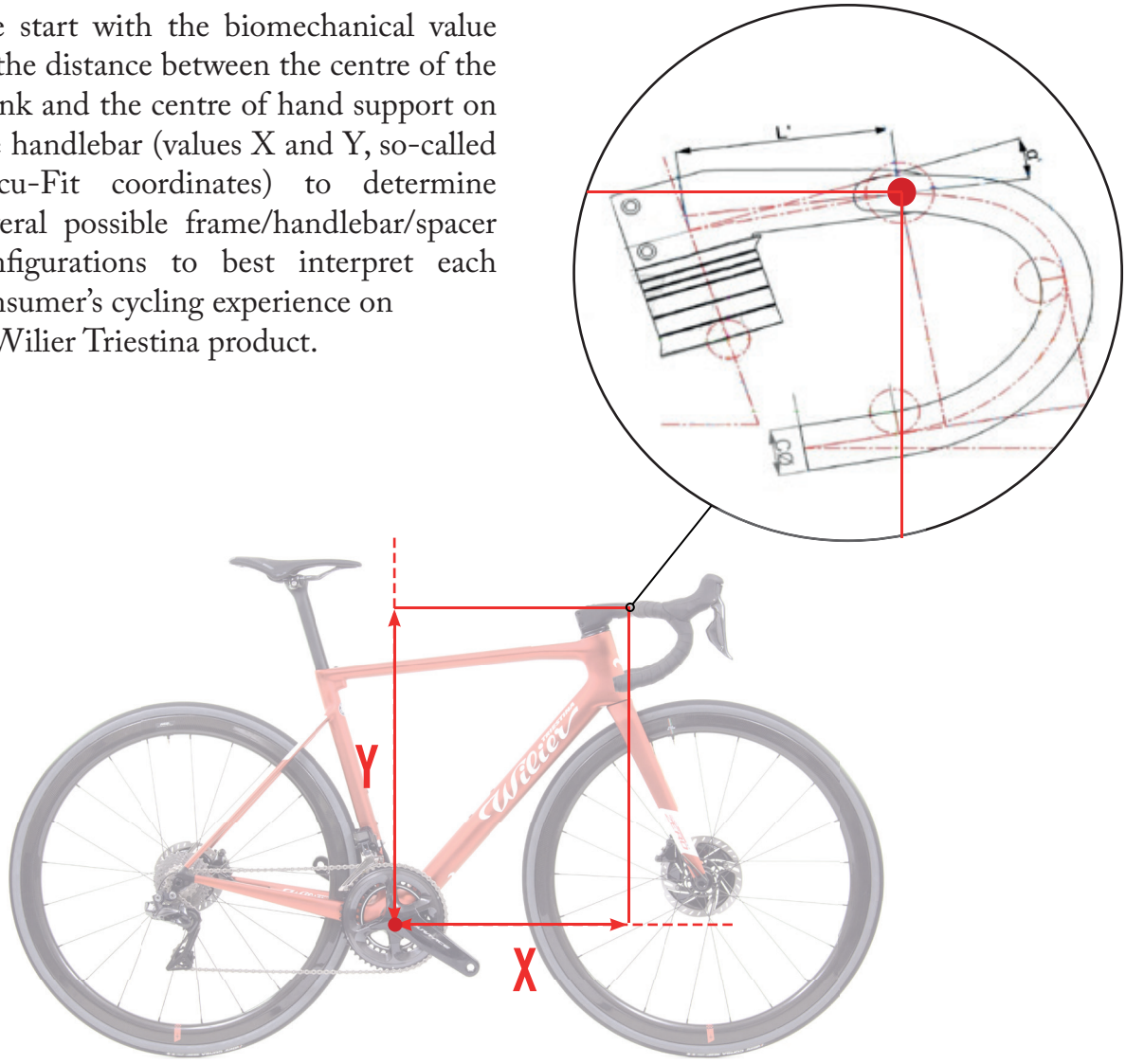
# ACCU-FIT COORDINATES

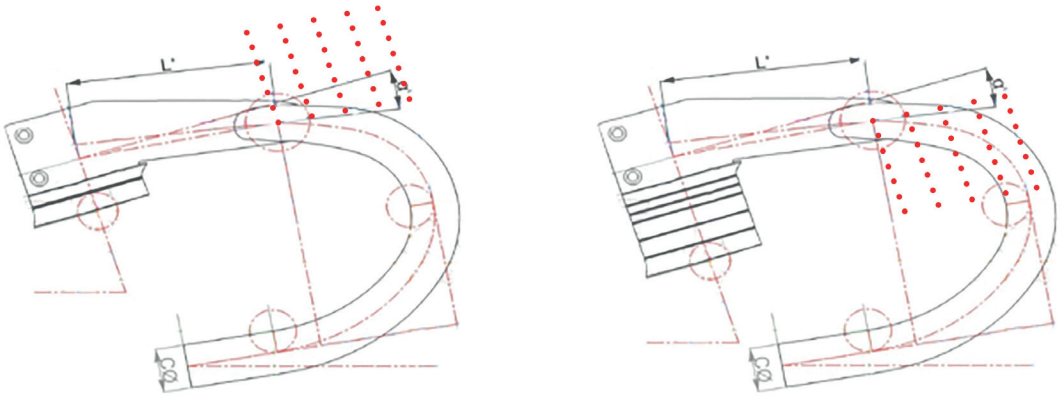
Correct positioning in the saddle is one of the most important issues for cyclists, especially for competitors and long-distance cyclists.

As a frame and handlebar manufacturer, we wanted to interpret positioning in the saddle analytically, providing biomechanics specialists and consumers with an additional tool. It's also important to remember that an incorrect position in the saddle can have a negative impact on the perception of the bicycle's quality.

**Wilier Triestina** has developed a new method to determine the perfect set-up based on the **size of the frame, number of spacers and size of the handlebar**.

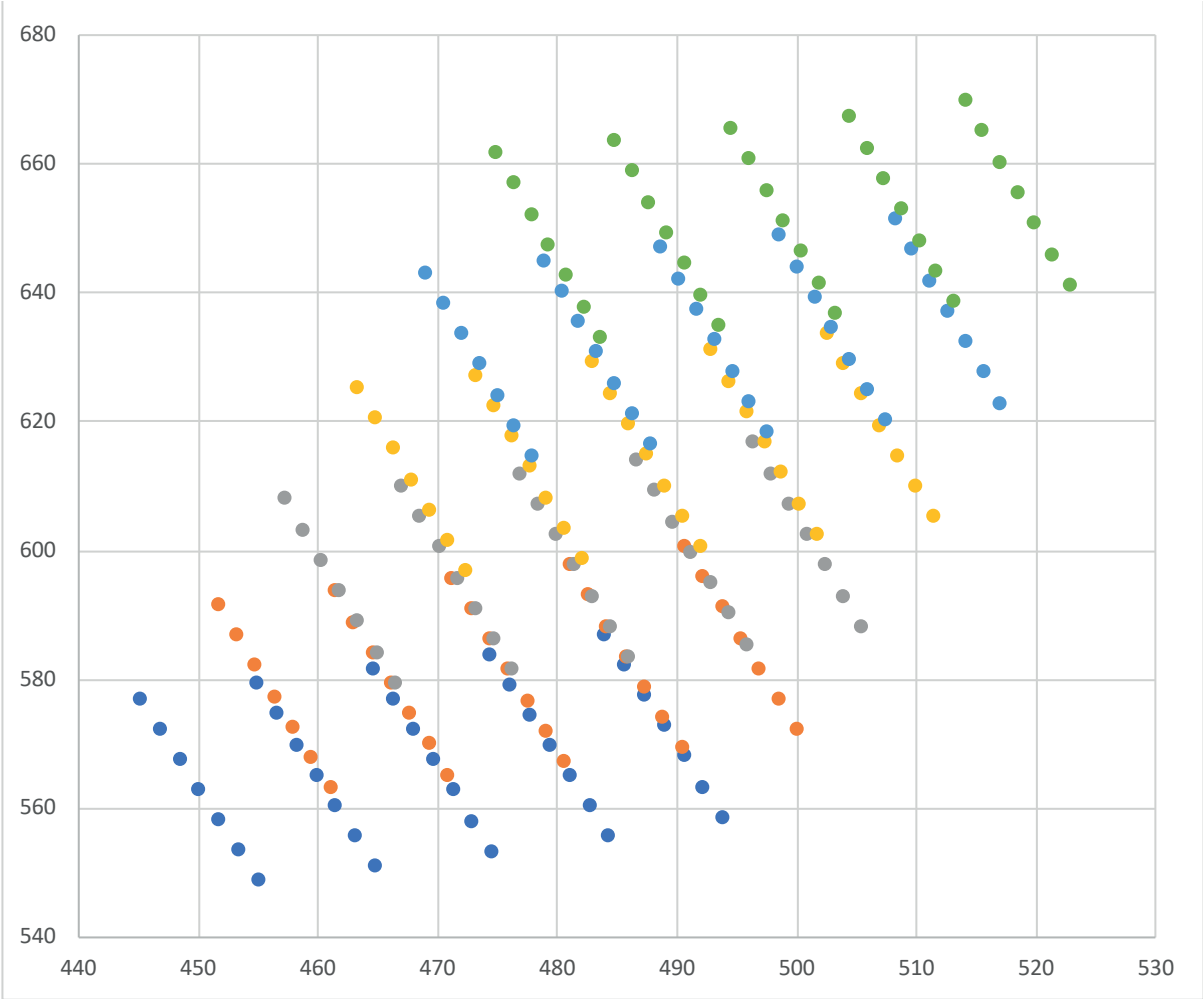
We start with the biomechanical value of the distance between the centre of the crank and the centre of hand support on the handlebar (values X and Y, so-called Accu-Fit coordinates) to determine several possible frame/handlebar/spacer configurations to best interpret each consumer's cycling experience on a Wilier Triestina product.





In the two figures above you see the 35 Accu-Fit points available for each frame size. The configuration on the left has no spacers, with the first size of stem. Also the configuration on the right has the first stem size but with all the spacers installed.

## POSSIBLE CONFIGURATIONS ON ZERO SLR WITH ZERO HANDLEBAR



# ASYMMETRICAL REAR TRIANGLE

Because the transmission of power to the rear wheel must not be subjected to dispersions that cause a loss of pedalling efficiency, we created an asymmetrical rear triangle with the seat stay at a slightly sharper angle than the right. This prevents lateral oscillation due to the force exerted by the cyclist on the chain.

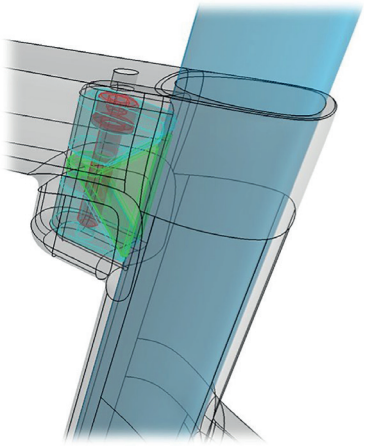
# SPEED RELEASE THRU AXLE SYSTEM

Another new feature is the **Mavic Speed Release** thru axle system that lets the wheel be removed from the frame without the axle having to be totally extracted from the wheel hub. This solution significantly reduces wheel release and insertion time, especially valuable during races.

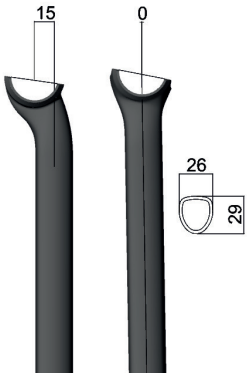
We chose the **Speed Release thru axle** to save weight (only 85 grams per pair) and safeguard the integrity of the frame: when tightening the wheel, when the optimal tightening torque is reached, the integrated control system prevents extra torque that could strip the thread and therefore damage the frame or fork.

# SEATPOST AND CLAMP

We have designed (with proprietary design) a new type of carbon monocoque seatpost for **Zero SLR**.
Its slender shape keeps weight down and resembles the truncated dovetail profiles of Wilier Triestina's aerodynamic line, like the **Cento10PRO** and **Cento10NDR.**



The seatpost is available with two geometries, one with a 0 mm setback and the other with a **15 mm setback**, both of which are compatible with the **Ritchey 1-Bolt seatpost clamp.**

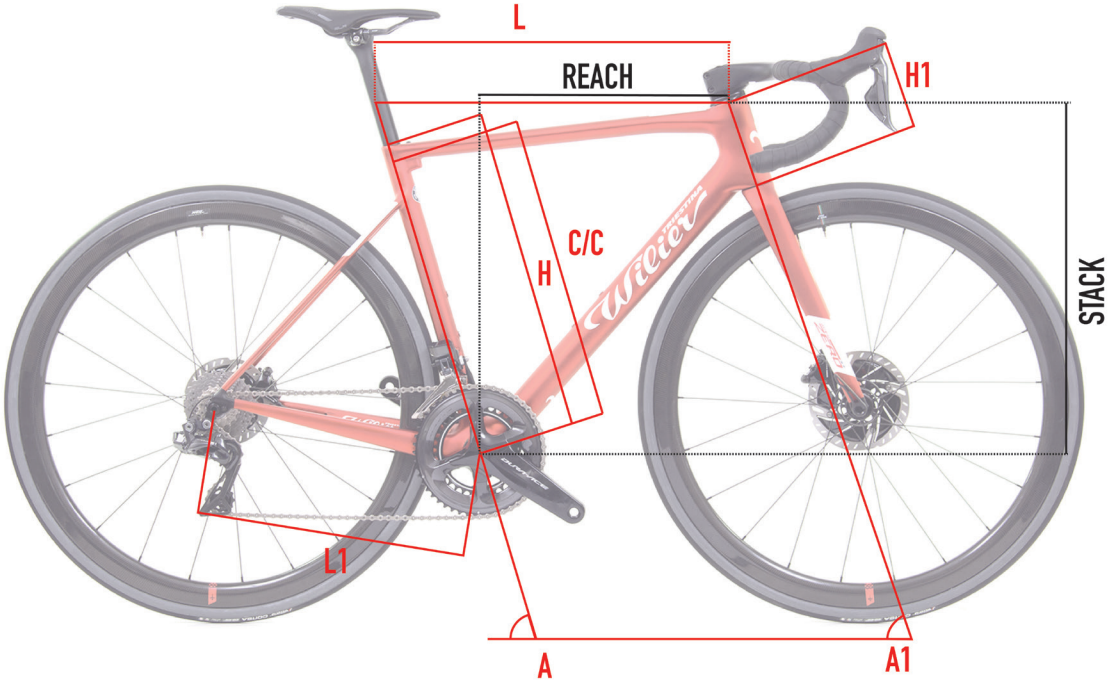



The seatpost is attached to the frame with an expander located inside the horizontal tube. We chose this solution for its contribution to aesthetics and aerodynamics.

The sections of the tubes of various sizes were designed to maintain consistent rigidity, handling quality and comfort on every frame size: it offers the same handling sensation on all six sizes.
Specifically, during the design phase a different section of the main tubes was created depending on the size in order to increase the torsional stiffness and stability of the frame.

WILIER ZERO SLR

# SIZES




| SIZE | C/C | L | H | A | H1 | L1 | A1 | REACH | STACK | WHEELBASE |
|---|---|---|---|---|---|---|---|---|---|---|
| | [cm] | [cm] | [cm] | [°] | [cm] | [cm] | [°] | [mm] | [mm] | [mm] |
| XS | 41,2 | 51,1 | 43,0 | 75,2 | 10,2 | 40,7 | 70,5 | 376 | 503 | 977 |
| S | 44,2 | 52,5 | 46,0 | 74,6 | 11,8 | 40,7 | 71,7 | 381 | 519 | 979 |
| M | 47,2 | 54,1 | 49,0 | 74,0 | 13,6 | 40,8 | 72,15 | 386 | 536 | 988 |
| L | 50,2 | 55,6 | 52,0 | 73,5 | 15,3 | 41,0 | 72,65 | 391 | 554 | 996 |
| XL | 52,2 | 57,2 | 54,0 | 73,0 | 17,2 | 41,1 | 72,8 | 397 | 572 | 1008 |
| XXL | 54,2 | 58,7 | 56,0 | 72,6 | 19,2 | 41,2 | 73,1 | 402 | 591 | 1017 |

# KEY POINTS RECAP

SEATPOST EXPANDER

BLOCCAGGIO REGGISELLA CON EXPANDER

1"1/4 - 1"1/4
SPECIAL BEARINGS

CUSCINETTI SPECIALI
1"1/4 - 1"1/4

BRAZED ON FRONT DERAILLEUR

SUPPORTO DERAGLIATORE
A SALDARE

UP TO 28 mm OF CLEARANCE

COPERTURE FINO A 28 mm

FLAT MOUNT
DISC BRAKES

FRENO A DISCO
FLAT MOUNT

ASYMMETRIC
CHAINSTAY

CARRO
ASSIMETRICO

100 MM O.L.D.

100 MM O.L.D.

REPLACEABLE REAR
DROPOUT

FORCELLINO
INTERCAMBIABILE

142 mm REAR STAY O.L.D

142 mm REAR STAY O.L.D

PRESSFIT BBSHELL
86,5 mm X 41 mm DIAMETER

PRESS FIT BBSHELL
LARGHEZZA 86.5 mm X DIAMETRO 41 mm

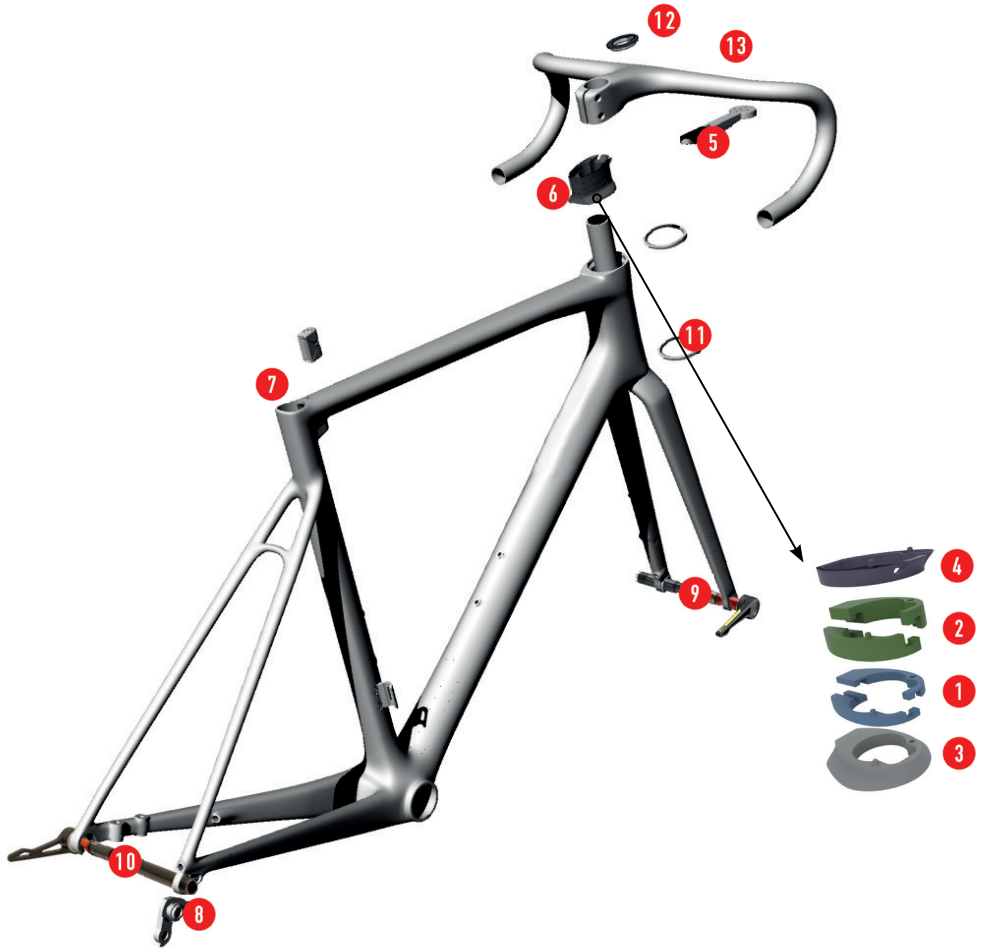
# COLORS

| | |
|---|---|
| COLOR | VELVET RED |
| FINISH | MATT |
| COLOR CODE | E3 |

| | |
|---|---|
| COLOR | ADMIRAL BLUE |
| FINISH | GLOSSY |
| COLOR CODE | E5 |

| | |
|---|---|
| COLOR | BLACK WHITE |
| FINISH | MATT |
| COLOR CODE | E4 |

# SPARE PARTS LIST




| | B2B CODE | DESCRIZIONE |
|---|---|---|
| 1 | WTP-ZSPACER5 | HANDLEBAR'S SPACER H5 |
| 2 | WTP-ZSPACER10 | HANDLEBAR'S SPACER H10 |
| 3 | W0TC | TOP COVER |
| 4 | W0TS | TOP SPACER |
| 5 | W0CICLOC | COMPUTER HOLDER |
| 6 | W0KITS | TOP COVER + TOP SPACER + HANDLEBAR'S SPACER H5 + HANDLEBAR'S SPACER H10 |
| 7 | W0STEXP | SEATPOST EXPANDER |
| 8 | WORDROP | REAR DROP OUT |
| 9 | V2720101 | MAVIC SPEED RELEASE FRONT |
| 10 | V2720201 | MAVIC SPEED RELEASE REAR |
| 11 | MR137 | HEADSET BEARINGS |
| 12 | WTP110A-4 | COMPRESSION RING |
| 13 | E0HBZ | ZERO HANDLEBAR |

| FRAME DETAILS AND TECHNOLOGY RECAP | |
|---|---|
| HEADTUBE | 1"1/4 – 1"1/4 (speacial bearings needed) |
| UPPER/LOWER BEARING | FSA MR 137 |
| FRONT FORK O.L.D. | 100 mm |
| REAR STAYS O.L.D. | 142 mm with MAVIC SPEED RELEASE |
| BB SHELL | SHIMANO PRESS FIT (86.5 wide x 41 diameter) |
| SEAT POST | WILIER SEATPOST |
| SEAT COLLAR DIAMETER | ZERO SLR SEATPOST GEOMETRY + INTEGRATED EXPANDER |
| FRONT DERAILLEUR TYPE | Brazed on |

# FAQ

**What novelties has Wilier introduced with the ZERO SLR?**

With the Zero SLR, Wilier Triestina is introducing a super lightweight bike with disc brakes and fully integrated cables for the first time on the market.

**What configurations are possible with the ZERO SLR?**

The Zero SLR can be assembled only with electronic shifting and disc brakes. The excellence of the frame is paired with the excellence of the equipment.

**How do I clean my ZERO SLR?**

The ZERO SLR can be cleaned like any other racing bike. We recommend wiping it with a soft cloth and mild soap, then drying it completely before use.

**What type of handlebar can be installed on the ZERO SLR?**

ZERO INTEGRATED HANDLEBAR is the handlebar made specifically for the ZERO SLR. It is available in five sizes. ALABARDA, STEMMA and BARRA can also be installed on it.

**How many types of seatposts can be installed on the ZERO SLR?**

There are two possible configurations. One with 0 mm setback and one with -15 mm setback. Both types of seatposts are designed by Wilier Triestina and are compatible with Ritchey 1-bolt head clamps. Aerodynamic configuration.

**What do I need to know to check axle/wheel compatibility?**

We guarantee compatibility between the Mavic Speed Release axle and wheels used for OEM assemblies (installed in factory). If different wheels are used, we recommend you check compatibility with the axle and that there is no separation from the hub following removal of the speed release. Wilier Triestina cannot be held liable when different wheels are used.