

PURE
CYCLING

CANYON

COMPONENTS 2015

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CANYON COMPONENTS INTRO

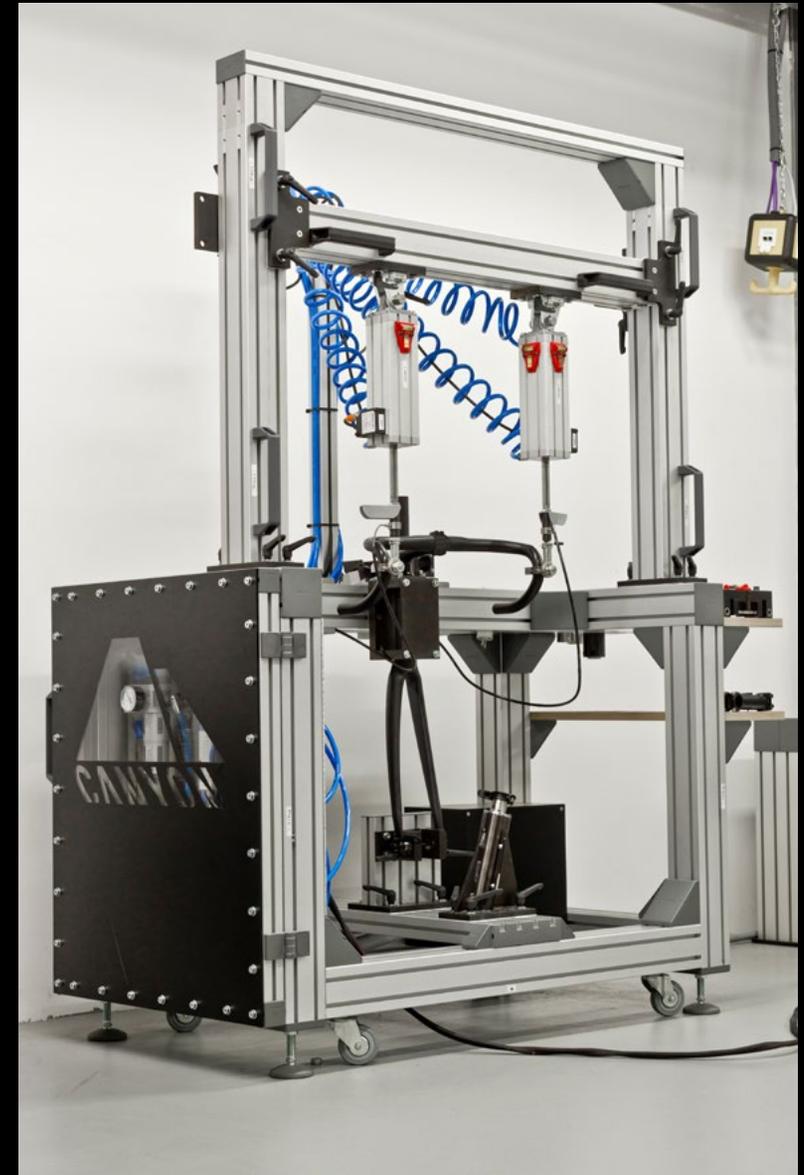
Canyon has always prided itself on technical precision and extracting the best performance from our products. It therefore made sense for us to start developing our own components, including seatposts, bars and stems, to further enhance the connection between the rider and our frames. From 2015, almost all canyon bikes will come equipped with Canyon components in some form. These parts have been developed right in line with the Canyon design approach with emphasis on enhancing ergonomics, aerodynamics and, most importantly, safety. Thanks to our components, both the overall performance and comfort of our bikes reach higher levels.

PRODUCT NAMING Canyon R&D projects have been codenamed using a simple letter and number system for a number of years now. The Aerocockpit, for example, was simply referred to as H11 when it was being designed and developed. We found it appropriate to carry this naming process through into series production to highlight the development process. The full name of the final product is now, "H11 Aerocockpit CF". The "H" stands for handlebar, the number means this was the eleventh project undertaken, while "CF" denotes the material used, just like with our bikes, in this case carbon fibre. All our stems take the letter "V" for the German term, "Vorbauten", while all seatposts follow the letter "S". All Canyon components have a Tech Box embossed into the design where all the details about the component's dimensions and features are presented clearly to avoid any ambiguity.



QUALITY CONTROL The Tech Box also reveals which of our five Canyon Bike Categories each component is designed for. At our quality control lab at Canyon Home in Koblenz, Germany, we use a series of punishing testing rigs to push each part far beyond any industry standard during the development phase. Real-time data capture forms the basis of these tests so that we get an insight into exactly what is happening when each part is placed under heavy stress loads.

This testing is not just limited to the R&D phase, but continues throughout the series production of every component to ensure absolute consistency throughout. Each category serves to outline the intended use of each part and the stresses they are designed to withstand, starting with Category 1 for road bikes, through Category 3 for mountain bikes, right up to Category 5 for big-hitting DH and dirt bikes. The categories are determined depending on the durability and engineering strength of each part when subjected to repeated stresses. These cycles last for several hours and in some cases, even days.



RECOMMENDED USE Canyon Bike Categories 1 and 2 encompass the stresses and loads experienced from road riding and cyclocross. The higher the category, the more rough and rugged the terrain expected to be encountered. Mountain bikes are introduced at Category 3 with XC bikes and all-rounders, while Category 4 covers the demands of enduro riding. Category 5 is the highest ranking for bikes designed to withstand repeated punishment over extreme terrain, no matter how fast, how steep or how heavy the landings are. All Canyon components have been developed according to this ranking system so that they perfectly fulfil the purpose of their design.



CANYON COMPONENTS ROAD HANDLEBARS

Combining lightweight design with a highly ergonomic form and solid construction was the absolute priority when developing Canyon Road Handlebars. The compact 70 mm reach and width-dependent drop of a maximum 132 mm allow fast hand movement between the three different grip positions. This balanced design contributes to more comfort in all riding positions. With a smaller radius where the bar bends 90° between the tops and the drops, the rider is able to achieve a wider hand position when riding on the tops, therefore having more control through corners or when riding over rough surfaces.



CANYON ROAD HANDLEBARS

H18 ERGO CF Carbon handlebar with ergonomic design

H17 ERGO AL Aluminium handlebar with ergonomic design

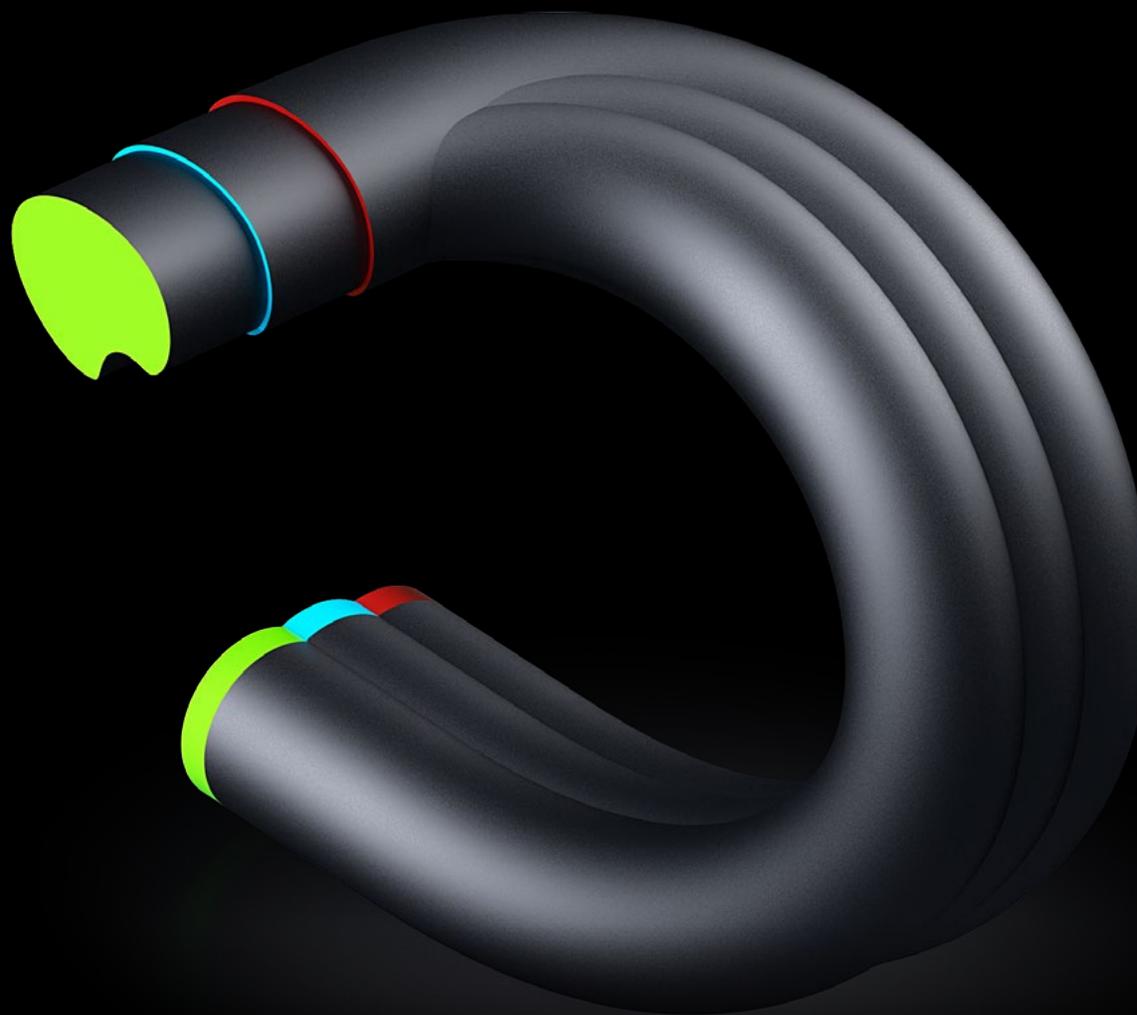
H11 AEROCOCKPIT CF Integrated bar and step with aerodynamic design

H16 AERO AL Aluminium handlebar with aerodynamic design

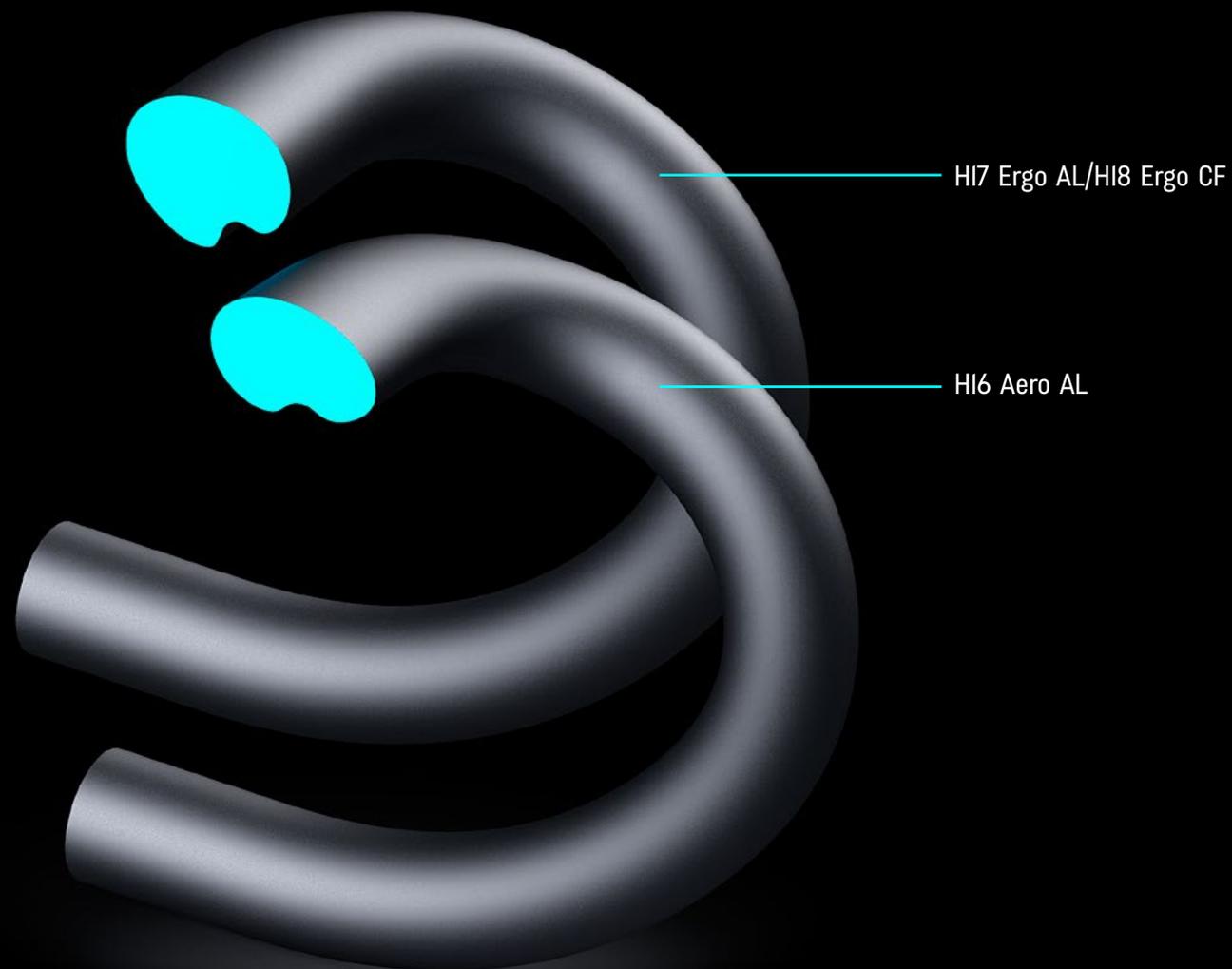
The curve featured on HI7 Ergo AL, HI8 Ergo CF and HI6 Aero AL models are all identical. This design increases the contact patch between hand and bar, instead of pressure being concentrated at just two points. The result is even more control when descending on the drops and during sprints, as well as improved access to shift and brake levers. Each handlebar is also optimised for attaching clip-on aero extensions thanks to the wide 31.8 mm diameter either side of the stem clamp. This provides an extremely secure base and wide-ranging adjustment for clip-on bars, which can be positioned up to a maximum 130 mm apart.



Our HI7 Ergo AL and HI8 Ergo CF models feature variable diameters on the top of the handlebars. This is dependent upon the width of handlebar selected to provide the optimum grip and control for every rider and hand size. Although the difference only comes down to a few millimetres, it is immediately recognisable when ridden and helps provide more comfort as well as control. The initial curve down to the drops has been designed to eliminate any dip in the transition from the tops to the hoods for easier position changes.



Subtle, yet key differences distinguish the Ergo and Aero models. The H16 Aero AL helps combat wind resistance with a 10 mm narrower profile when viewed head on. Not wanting to sacrifice comfort in pursuit of better aerodynamic performance, H16 features a similar form-fitting shape on the tops to the Ergo models. The bar profile of the H16 Aero AL is also found on the H11 Aerocockpit CF.





The HII Aerocockpit CF has the final word when it comes to pure aerodynamic performance. This integrated bar and stem was developed in conjunction with the Aeroad CF SLX and saves approximately 5.5 W at 45 km/h against a conventional bar and stem combination due to the following factors:

- Minimal frontal surface area
- Optimised form and configuration of the bars and stem
- Full cable and wire integration, including specific recess for Di2 Junction Box
- Seamless transition between bartape and bar tops for lower frontal area fluctuation

We developed the HII Aerocockpit CF together with headset manufacturer Acros to ensure that the aerodynamic profile is consistently carried through the spacers as well.

CANYON COMPONENTS HANDLEBARS MOUNTAIN BIKE

The form of our new Canyon Mountain Bike Handlebars emerged from the decades of collective riding experience of our developers as well as our pro riders. With endless combinations of backsweep, upsweep and rise to select through to find the optimal mix of all three, we believe we have succeeded in going beyond subjective preferences to create a range of handlebars with the best geometries for all types of riding.

CANYON MOUNTAIN BIKE FLAT BARS

H20 FLAT CF Category 3 carbon flat bar

H12 FLAT AL Category 3 aluminium flat bar

H21 FLAT CF Category 4 carbon flat bar

H13 FLAT AL Category 4 aluminium flat bar

CANYON MOUNTAIN BIKE RISER BARS

H22 RISE CF Category 3 carbon riser bar

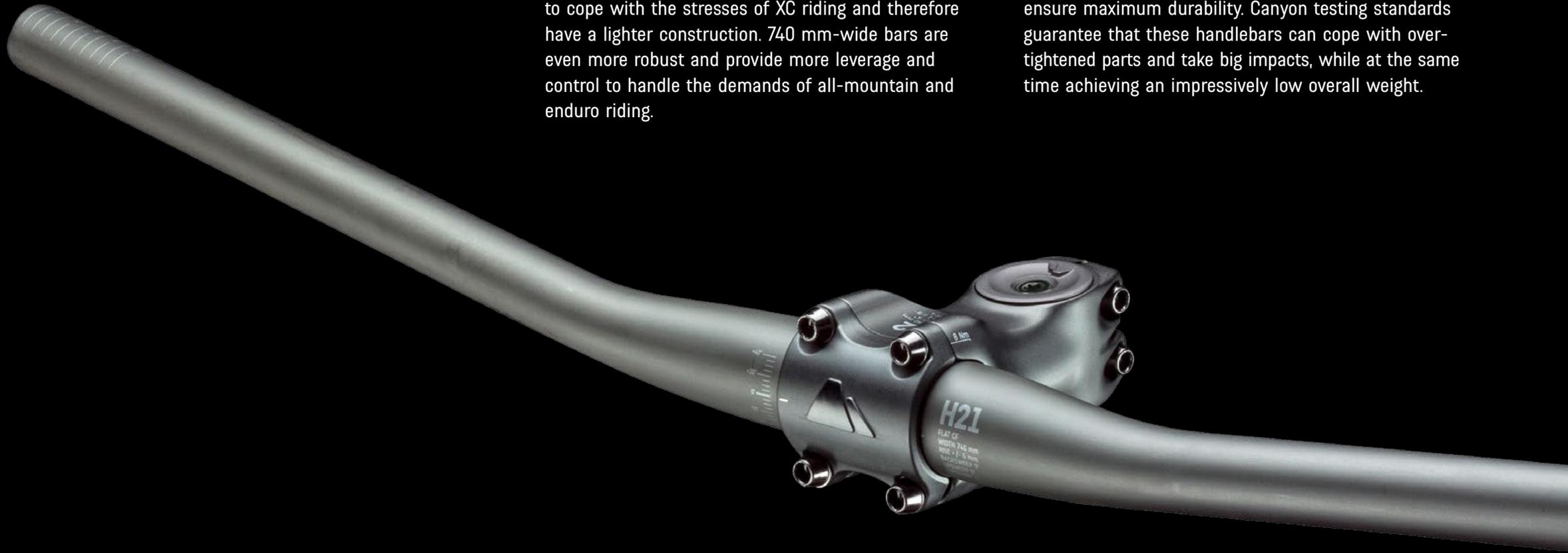
H14 RISE AL Category 3 aluminium riser bar

H23 RISE CF Category 4 carbon riser bar available in 740 mm / 760 mm

H15 RISE AL Category 4 aluminium riser bar available in 740 mm / 760 mm

We have developed two flat bar and two riser bar designs, each devised to fulfil the demands of specific types of riding, from XC to all-mountain and enduro, by combining optimum values in terms of width, weight and durability. Each handlebar is available in either aluminium or carbon to create a total of ten available models. All bars with a width of 720 mm are designed to cope with the stresses of XC riding and therefore have a lighter construction. 740 mm-wide bars are even more robust and provide more leverage and control to handle the demands of all-mountain and enduro riding.

All carbon handlebars feature an optimised layup to cope with the number of different clamping forces at play. Aside from the stem clamp, pressure is also applied by brake and gear levers, lock-on grips and various remotes. Just as our aluminium handlebars are tapered at certain points to provide more strength, we've targeted crucial areas in the carbon layup to ensure maximum durability. Canyon testing standards guarantee that these handlebars can cope with over-tightened parts and take big impacts, while at the same time achieving an impressively low overall weight.



CANYON COMPONENTS STEMS

Beyond connecting the handlebars and fork shaft, the stem plays a crucial role in a bike's overall safety. With this in mind, Canyon Stems feature a new clamping concept that guarantees correct assembly every time. This new form emerged from studies into the effects of clamping on carbon structures carried out in cooperation with the Institute of Composite Materials at Kaiserslauten University in Germany.



CANYON VORBAUTEN

- V12** Category 4 mountain bike stem
- V13** Category 2 road bike 1 1/4" stem
- V14** Category 3 mountain bike stem
- V15** Category 2 road bike 1 1/8" stem
- V16** Category 5 DH and dirt riding stem



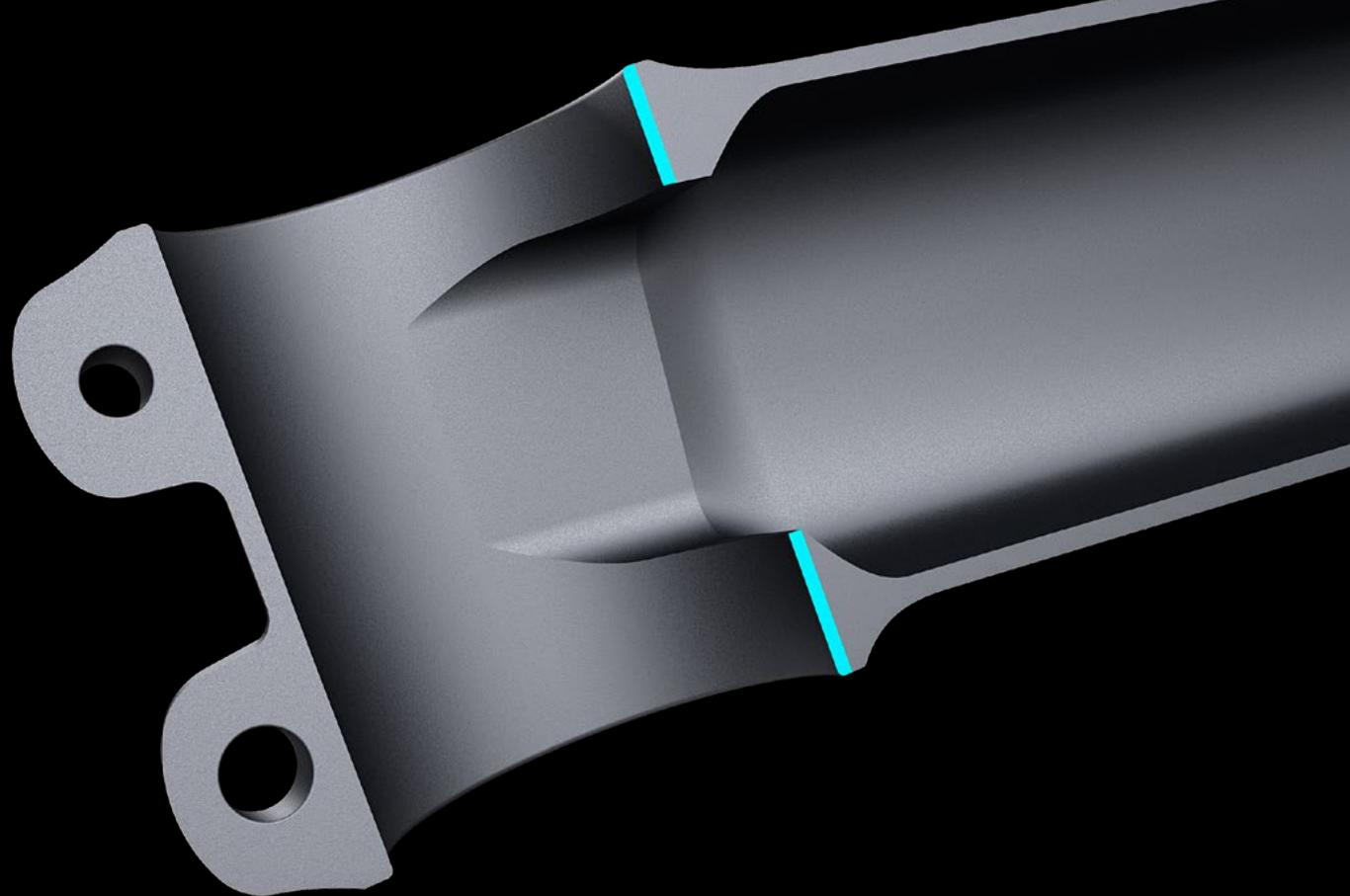
The handlebar clamps on all Canyon Stems are formed so that aluminium handlebars can be held in place without the need of a front plate. This overhanging effect improves safety by separating the forces applied by the clamp and those that occur when load is transferred through the bar, instead of having both impacting on the same location.

This design, together with the asymmetric face plate also makes it easy to achieve the correct setup every time. Both upper screws are hand-tightened until the face plate and stem body sit flush against each other. The lower screws, followed again by the upper screws can then be tightened to the recommended torque. Thanks to this, cross-pattern tightening and checking for a consistent upper and lower gap is no longer necessary.

Clamp widths are designed to be as wide as possible depending on the intended use of each stem to provide optimum hold and torsional stiffness. The broad form helps spread the load from the handlebars away from the edges of the clamp.

This again contributes to the overall safety of Canyon Stems. Extra-durable screws with reinforced hexagon sockets and semi-spherical washers designed to reduce the bending moment placed on the screws once again underlines our commitment to precision and reliability at all costs.





Just like the handlebar clamp, the stem clamp also needs to be stiff and secure for handling accuracy and rider safety. The objective again for this part is to spread clamping loads so that they are not all concentrated on a singular point. This can be achieved by widening the aperture between the top and bottom

walls opposite the stem clamp. The placement of the bolts is particularly important. Positioning them as close to the fork shaft as possible reduces the effective lever of the clamp. This means that the parts flex less when tightened, placing less strain on the materials used.

Exposure of the M5 hex bolts is reduced to a minimum to avoid contact with the rider's legs when out of the saddle. Through a number of special features, this clamp is perfectly designed to provide a constantly reliable interface with any fork shaft, whether carbon or aluminium.

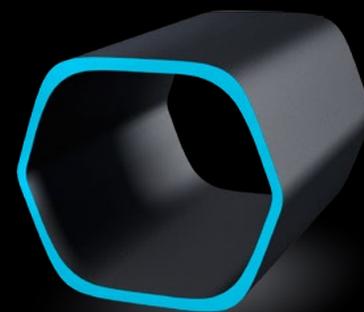
The square cross-sectional profile on V13 and V15 road bike stems guarantees a solid transition between the handlebars and the fork shaft. Together with the handlebar clamp design, we have been able to increase torsional stiffness by up to 40%. Vertical flex is still enabled to ensure more rider comfort, however, under increased loads from sprinting or climbing out of the saddle, the whole front end remains perfectly stiff to transfer all power.

A stem's purpose is normally purely functional in an effort to combine the lowest weight with the highest levels of stiffness and robustness. This usually leaves little freedom in terms of enhancing the overall aesthetics of the finished product. Nevertheless, we have been able to come up with structures that fall perfectly into line with the overall design approach of Canyon road bikes.

From the rider's perspective, our new clamping concept ensures a seamless, uninterrupted transition between the stem body and handlebar clamp. The end result is that the whole stem appears to have been sculpted from a single unit with clean surfaces and flush-fitting parts for minimal gap exposure, which also helps improve airflow.



Our Category 3 VI4 mountain bike stem is characterized by an edgier, almost hexagonal profile. This design provides a distinct contrast between light and dark surfaces. As with our road bike stems, the form of the VI4 was created to reflect its intended riding use as well as merge seamlessly with the design of our mountain bike frames.



The profile of the V12 Category 4 mountain bike stem is even more progressive. Technical precision is highlighted by the machined finish to key areas. The cut-outs surrounding the M6 stem clamp bolts and around the transition to the face plate deliberately provide a stark contrast to the overall flowing design.



Our dirt stem, the V16, has a classic BMX-inspired and profoundly three-dimensional design that reflects the extreme demands of Category 5 riding.

The compact 45 mm form features an uninterrupted transition between both clamps, while the embedded top cap (also included on the V12) and weight-saving machining on the sides set this component apart.



CANYON COMPONENTS SEATPOSTS

All Canyon Seatposts feature our proven VCLS Technology (Vertical Comfort Lateral Stiffness). For years, these four letters have stood for providing the utmost in rider comfort and uncompromising lateral stiffness at the same time. The effect is achieved through the use of new materials, optimising carbon layups and fine-tuning tube dimensions.

The most sensitive contact point between rider and bike is the saddle together with the seatpost, which carry approximately 70% of the rider's total weight. Absorbing as much vibration as possible contributes greatly to overall comfort, something our S13 and S23 models achieve thanks to their reworked tube profiles and material layups. The head of S23 VCLS CF is fixed aluminium, while the S13 VCLS CF is full-carbon and allows infinite setback adjustment between 15 mm and 35 mm.

S25 VCLS 2.0 CF Category 3 mountain bike seatpost with 30.9 mm diameter

S14 VCLS 2.0 CF Category 2 road seatpost with 27.2 mm diameter

S15 VCLS 2.0 CF Category 2 road seatpost with 27.2 mm diameter and increased setback

S13 VCLS CF Category 2 road seatpost with 27.2 mm diameter and variable setback

S23 VCLS CF Category 2 road seatpost with 27.2 mm diameter



S13

S23

One of the biggest breakthroughs in adding comfort to our seatposts was the development of our carbon leaf spring technology, known as VCLS 2.0, created together with our partners at Ergon and first introduced back in 2012. This design now features on SI4, SI5 VCLS 2.0 CF models. A new arrival to our current range for 2015 is the S25 VCLS 2.0 CF, which opens up the technology to mountain bikers for the first time ever with a more robust design.

The mechanics are as simple as they are perfect as shock impacts and the direction of flex take the same trajectory, meaning that they cancel each other out. Two patented, parallel-set and independent leaf springs form the core of this design and allow up to 20 mm of flex to absorb impacts to give the rider a big boost in comfort. A floating seat clamp connects the two leaf springs at the head. The whole system is 100% maintenance-free. These seatposts embody the very philosophy of VCLS Technology by increasing rider performance by ensuring them more comfort.



The floating seat clamp allows saddle tilt angle to remain constant when flexing, a feature that has previously eluded conventional flex seatpost design. Riders can also customise saddle tilt by simply sliding each leaf spring either up or down. As soon as the ideal setting has been achieved, a bolt at the lower end of the seatpost secures the position. Saddle setback is also easily adjustable thanks to the Flip Head, which allows the clamp to be switched 180° for 12 mm of variation.

VCLS 2.0 CF seatposts achieve an ideal combination of lightweight construction, compliance, durability and torsional stiffness. The road seatposts, S14 and S15, differ in form to cater for the preferences of different riders. S14 offers +2 mm to -10 mm of saddle setback due to its straight-up design, while the curved shape of S15 provides between +25 and +13 mm.

The new S25 VCLS 2.0 gives extra level of shock absorption for hardtail and short travel full-suspension mountain bikes. Measuring 400 mm long and with a diameter of 30.9 mm, the Flip Head also allows the rider to select between +10 mm and -2 mm of setback to attain their ideal riding position.



CANYON COMPONENTS TECHNICAL DATA

ROAD HANDLEBARS

Width	Reach	Drop	Category	Weight	Material
H18 - ERGO CF					
400 mm	70 mm	128 mm	2	186 g	Carbon
420 mm	70 mm	130 mm	2	196 g	Carbon
440 mm	70 mm	132 mm	2	206 g	Carbon
H17 - ERGO AL					
380 mm	70 mm	128 mm	2	259 g	AL-2014
400 mm	70 mm	128 mm	2	267 g	AL-2014
420 mm	70 mm	130 mm	2	275 g	AL-2014
440 mm	70 mm	130 mm	2	283 g	AL-2014
H11 - AEROCOCKPIT CF					
90* / 390 mm	70 mm	128 mm	1	335 g	Carbon
100* / 390 mm	70 mm	128 mm	1	345 g	Carbon
100* / 410 mm	70 mm	128 mm	1	350 g	Carbon
110* / 410 mm	70 mm	128 mm	1	365 g	Carbon
120* / 410 mm	70 mm	128 mm	1	375 g	Carbon
130* / 410 mm	70 mm	128 mm	1	385 g	Carbon
120* / 430 mm	70 mm	128 mm	1	382 g	Carbon
130* / 430 mm	70 mm	128 mm	1	395 g	Carbon
H16 - AERO AL					
390 mm	70 mm	128 mm	2	263 g	AL-2014
410 mm	70 mm	130 mm	2	271 g	AL-2014
430 mm	70 mm	130 mm	2	280 g	AL-2014

* Stem Length

MTB HANDLEBARS

Width	Rise	Backsweep	Upsweep	Category	Weight	Material
H20 - FLAT CF						
720 mm	+/- 5 mm	9°	0°	3	170 g	Carbon
H12 - FLAT AL						
720 mm	+/- 5 mm	9°	0°	3	235 g	AL-7075
H21 - FLAT CF						
740 mm	+/- 5 mm	9°	0°	4	175 g	Carbon
H13 - FLAT AL						
740 mm	+/- 5 mm	9°	0°	4	280 g	AL-7075
H22 - RISE CF						
720 mm	+15 mm	9°	5°	3	180 g	Carbon
H14 - RISE AL						
720 mm	+15 mm	9°	5°	3	240 g	AL-7075
H23 - RISE CF						
740 mm	+15 mm	9°	5°	4	190 g	Carbon
760 mm	+15 mm	9°	5°	4	195 g	Carbon
H15 - RISE AL						
740 mm	+15 mm	9°	5°	4	285 g	AL-7075
760 mm	+15 mm	9°	5°	4	290 g	AL-7075

STEMS

Length	Angle	Fork Shaft	Category	Weight	Material
V12					
40 mm	+/-6°	1 1/8"	4	140 g	AL-7050
50 mm	+/-6°	1 1/8"	4	143 g	AL-7050
60 mm	+/-6°	1 1/8"	4	146 g	AL-7050
70 mm	+/-6°	1 1/8"	4	150 g	AL-7050
80 mm	+/-6°	1 1/8"	4	164 g	AL-7050
V13					
80 mm	+/-6°	1 1/4"	2	143 g	AL-7050
90 mm	+/-6°	1 1/4"	2	148 g	AL-7050
100 mm	+/-6°	1 1/4"	2	153 g	AL-7050
110 mm	+/-6°	1 1/4"	2	158 g	AL-7050
120 mm	+/-6°	1 1/4"	2	163 g	AL-7050
130 mm	+/-6°	1 1/4"	2	168 g	AL-7050
V14					
70 mm	+/-6°	1 1/8"	3	141 g	AL-7050
80 mm	+/-6°	1 1/8"	3	146 g	AL-7050
90 mm	+/-6°	1 1/8"	3	151 g	AL-7050
100 mm	+/-6°	1 1/8"	3	156 g	AL-7050
110 mm	+/-6°	1 1/8"	3	161 g	AL-7050
120 mm	+/-6°	1 1/8"	3	166 g	AL-7050
V15					
80 mm	+/-6°	1 1/8"	2	148 g	AL-6061
90 mm	+/-6°	1 1/8"	2	153 g	AL-6061
100 mm	+/-6°	1 1/8"	2	158 g	AL-6061
110 mm	+/-6°	1 1/8"	2	163 g	AL-6061
120 mm	+/-6°	1 1/8"	2	168 g	AL-6061
130 mm	+/-6°	1 1/8"	2	173 g	AL-6061
V16					
45 mm	2°	1 1/8"	5	190 g	AL-7050

SEATPOSTS

Setback	Length	Diameter	Category	Weight	Material
S25 - VCLS 2.0 CF					
10 mm / -2 mm	400 mm	30,9 mm	3	235 g	Carbon
S14 - VCLS 2.0 CF					
2 mm / -10 mm	330 mm	27,2 mm	2	220 g	Carbon
S15 - VCLS 2.0 CF					
13 mm / 25 mm	330 mm	27,2 mm	2	220 g	Carbon
S13 - VCLS CF					
15 mm-35 mm	330 mm	27,2 mm	2	220 g	Carbon
S23 - VCLS CF					
25 mm	330 mm	27,2 mm	2	230 g	Carbon

