

 **FACTOR**



**ONE**

*Beyond Aerodynamics*

# ONE

## Beyond Aerodynamics



The new Factor ONE goes beyond aerodynamics to be the fastest aero road bike ever, not on paper or in the wind tunnel, but on the road. With the Twin Vane Evo downtube at its core, the new ONE has been designed for aerodynamic efficiency and maximum frame stiffness. Leading the peloton against the headwind, an all-out criterium or at a fast paceline through the rolling countryside, the new ONE is sure to deliver an exhilarating, fast ride.

Profiting from all the aerodynamic work to design the Factor SLiCK (time-trial/triathlon machine), Factor's R&D team has translated that tube-shaping knowledge to a road bike platform. Using the AG2R Pro-Tour approved geometry from the O2, the new ONE comes loaded with unique features.

### *Features:*

- Twin Vane Evo downtube
- OTIS external steerer fork with wide stance legs
- OTIS Evo aero barstem
- All-internal cable routing
- Wide stance airfoil seatstays
- Clearance up to 28mm tyres
- Electronic drivetrain only
- Rim and Disc brake versions
- 7 frames sizes



## *Beyond Aerodynamics*

The new Factor ONE has been developed to be the fastest road bike ever. Not just on paper, but on the road. This is the result of extensive aerodynamic design work, structural manufacturing optimization for best power transfer and integration of components.



### *Factor Twin Vane Evo downtube*

Factor has worked tirelessly on the development of the Twin Vane Evo downtube, for more aerodynamic efficiency and maximum frame stiffness. The Twin Vane Evo takes all what we learned during the extensive aerodynamic work to design the Factor SLICK, and has been developed through CFD in the computer and later optimized in the wind tunnel. This feature on the ONE shows an expertise in design and engineering that is unique to Factor.

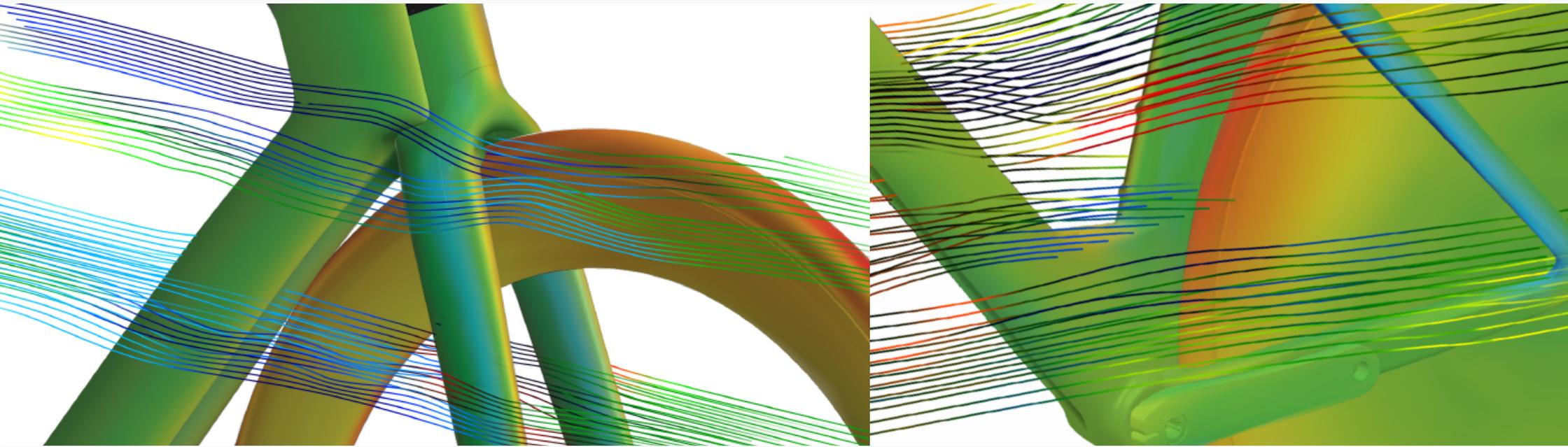




## *Cutting Through the Wind*

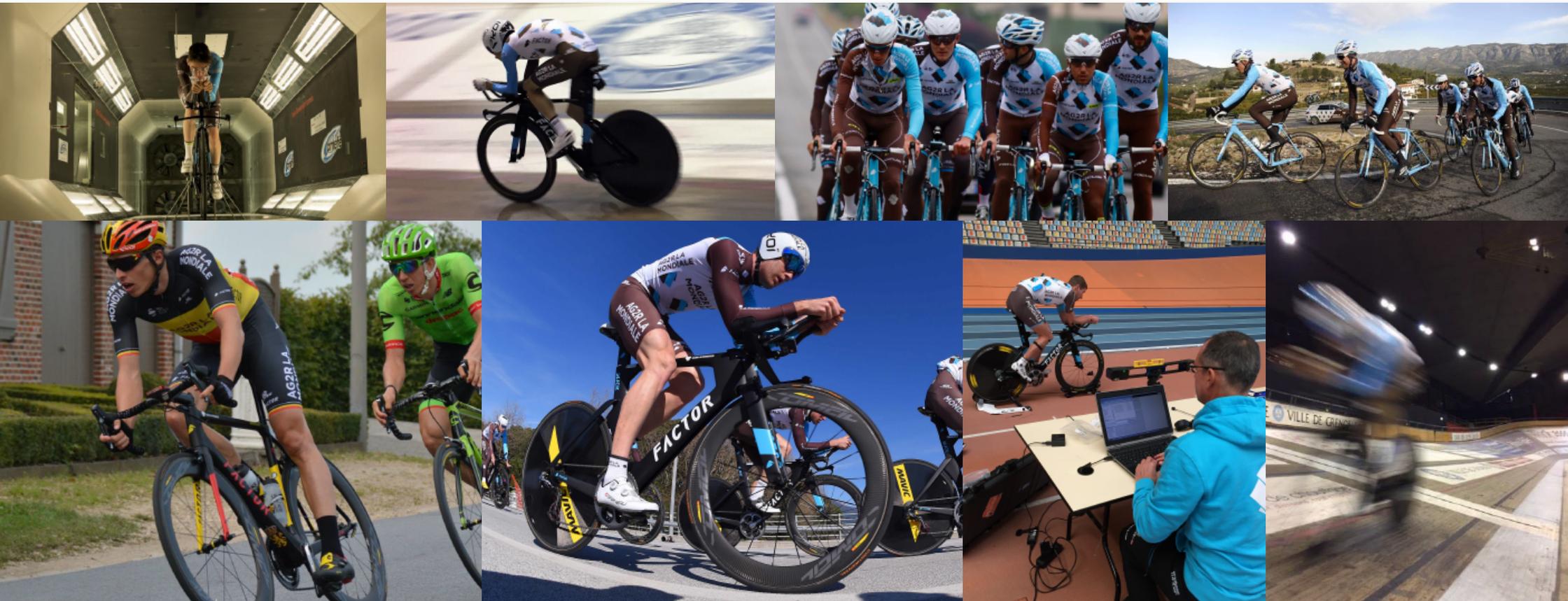
The Factor ONE has been designed to push the limits beyond anything else seen in the market. Using CFD and wind tunnel data, we have perfected the aerodynamic profile of every section in combination with superior riding characteristics.

- Optimized Twin Vane Evo downtube lets the air run through while increasing the bike stiffness at the BB and headset.
- Wide stance seat stays to allow the air to flow free through, rather than around, the frame and rear wheel.
- Deep airfoil seat tube contours the rear wheel to hide it from the wind
- The external OTIS fork features airfoil profiled, wide stance legs.



## *Aerodynamics*

Using the most advanced CFD software, the Factor ONE has been shaped for the best aerodynamics without sacrificing riding performance. At the Factor Engineering Centre, our team of designers and engineers has run multiple tube shape iterations in pursuit of speed. The resulting shapes have also been validated and perfected at the wind tunnel and during velodrome tests.



## *Aerodynamics for the real world*

Factor ONE has been shaped for the best aerodynamics using CFD (Computational Fluid Dynamics) and then validated and perfected in the wind tunnel, the velodrome and on the road. Together with world-class triathletes and Pro-Tour team AG2R-La Mondiale, as well as our internal Factor test riders, we have worked obsessively to refine and adjust every single shape and component of the ONE in search of speed. Not just for aerodynamic efficiency, but for real world performance and real world speed, be it a winning sprint at the end of the Tour de France or a long one-day classic race in Belgium.



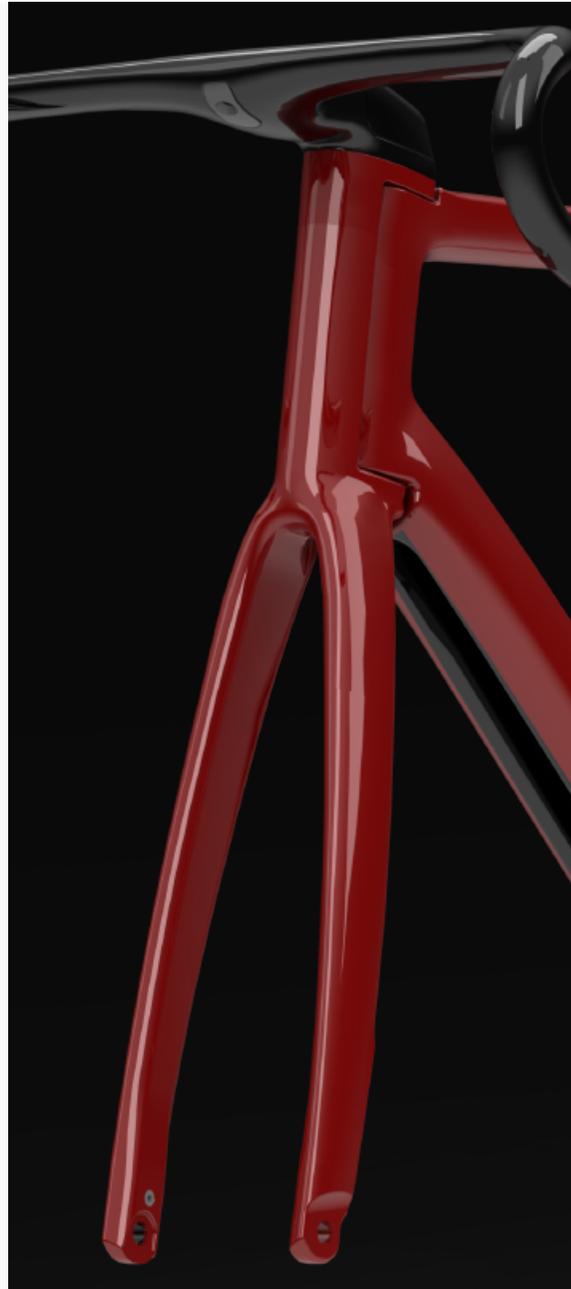
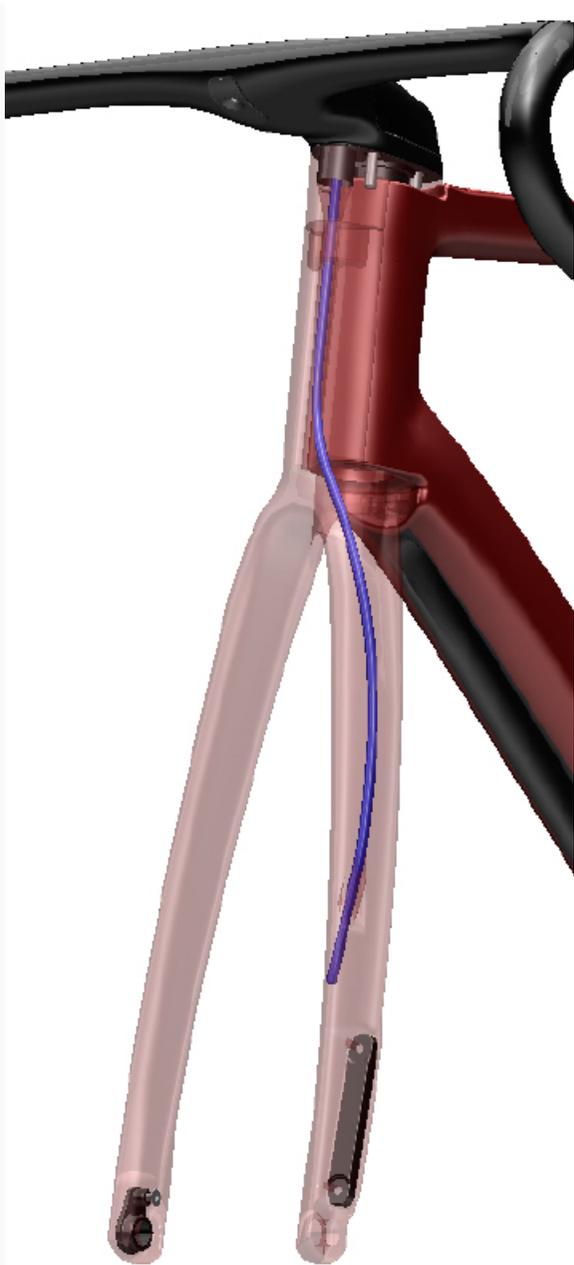
## *Factor OTIS*

Standing for ONE Total Integration System, the OTIS gives shape to the front of the ONE. The system comprises the following exclusive Factor parts:

- External steerer fork
- Barstem
- Internal headset rod and upper compressor

The benefits of this design are many:

- Increased stiffness while sprinting
- Increased precision during cornering, descending
- Internal cable routing: clean looks and improved aerodynamics.
- Possibility to adjust bar stack at anytime, by adding or taking out spacers: no steerer tubes to cut down, no cables to rework.
- Headset installation and preload is independent of handlebar assembly.
- Ample knee clearance while sprinting or out of the saddle climbing



### *Factor OTIS*

Taking advantage of the OTIS assembly, the ONE Disc features complete internal routing. That includes the hidden front brake hose, only visible where it meets the caliper at the bottom of the fork leg.

The ONE Disc fork has been shaped using Factor's aerodynamic know-how and CFD capabilities, reducing the volume of the crown where it blends into the headtube. At the same time, the wide stance fork legs allow the air to run through to further decrease aerodynamic resistance while increasing lateral stiffness. With the same obsession for aerodynamics and to keep things tidy, the disc brake caliper is housed in a recess of the fork leg.



## *Factor ONE OTIS Evo barstem*

The latest evolution of the OTIS barstem, the Evo goes a step further with improved aerodynamic profile and features. The OTIS (ONE Total Integration System) barstem assembles directly to the top of the external fork, bringing outstanding stiffness while sprinting and precision during cornering. Full internal cable routing cleans up clutter from the front of the bike while still allowing for easy bar stack adjustment and disassembly for travelling.

### Features:

- Nearly invisible to the wind, due to the proven Kamm-Tail airfoil design, and unyielding to even the strongest sprint induced torque
- Smart OTIS assembly system allows for easy stack adjustment by adding or taking out included spacers, all while keeping a clean look.
- Ergonomic bar shape with 125mm reach and 80mm drop.
- Ample knee clearance during sprints or climbing out of the saddle.
- Full internal cable routing compatible with Di2 and hydraulic hoses.
- Integrated computer mount
- All hardware is corrosion resistant stainless



### *Wide stance aero seatstays*

Letting the air run through the frame and wheels, instead of around it, for superior aerodynamics and lateral stiffness.



### *Seatpost options*

Factor ONE is offered with Zero and Offset seatposts, with the aerodynamic profile allowing for easy Di2 battery internal installation. 1-bolt saddle clamp for easy setup, available for carbon and metal saddle rails (7x9 or 7x7 rails).



### *Power drivetrain*

The continuous downtube-to-chainstay structure of the ONE frame provides an unparalleled stiffness and power transfer, with minimum energy loss and maximum drivetrain performance. The use of a wide BBright bottombracket together with the Twin-Vane Evo downtube and tall chainstays make for a direct propulsion with every pedal stroke, while the CeramicSpeed equipped bearings keep the moving smooth and weatherproof.

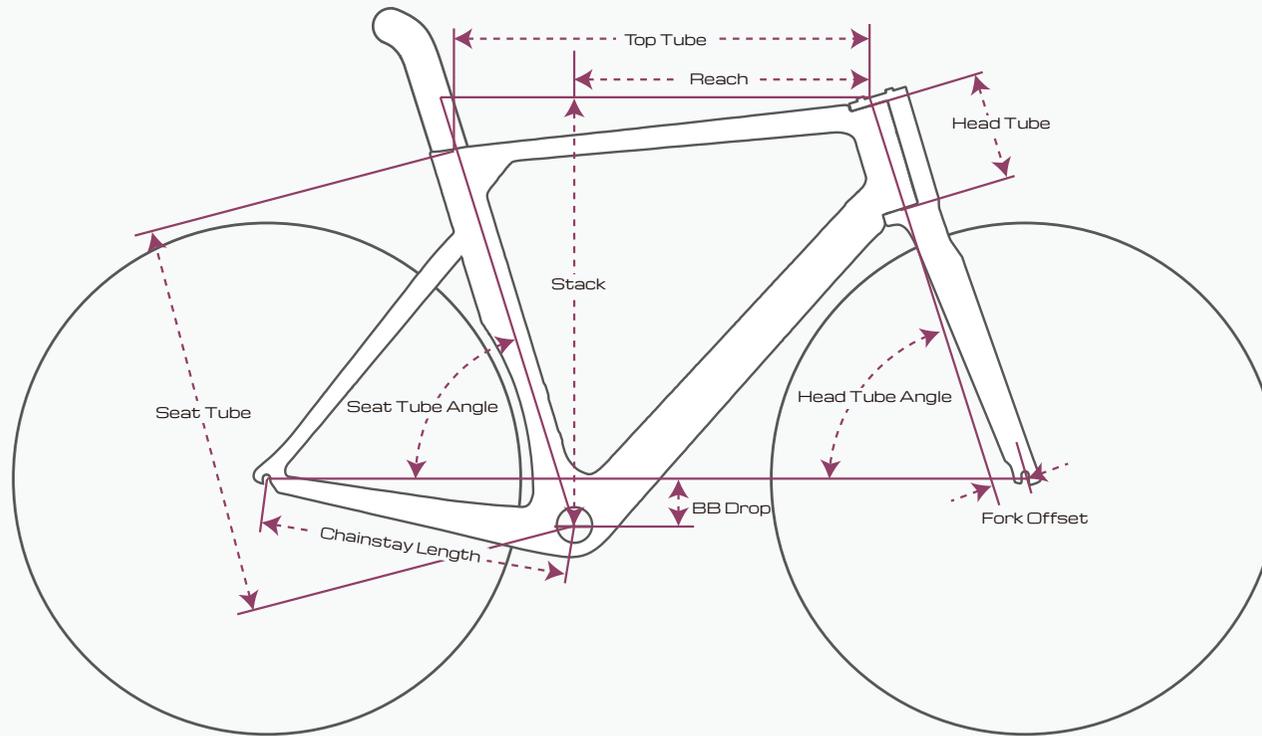


### *Brake options*

Whether it is the ONE or the ONE Disc, each frame and fork has been designed specifically to excel at the highest level.

For the ONE, the rim brakes use the Direct Mount standard, optimized for braking performance without vibrations. The wide stance seatstays keep the rear caliper shielded from the wind.

The ONE Disc uses Flat Mount standard, with recessed caliper hardware mounts for small aerodynamic gains and cleaner looks. The bolt-on Factor 12mm thru-axles keep the whole system tidy and away from the wind.



## ONE

Size	46	49	52	54	56	58	61
Stack*	495	495	520	542	565	588	611
Reach*	360	367	376	384	392	401	409
Seat Tube Angle	73.0°	73.0°	73.0°	73.0°	73.0°	73.0°	73.0°
Head Tube Angle	70.5°	70.5°	72.2°	73.1°	73.5°	73.5°	73.5°
Fork Offset	53	53	53	43	43	43	43
BB Drop	68	68	68	68	68	68	68
Chainstay Length	405	405	405	405	405	408	410
Seat Tube	430	456	480	502	525	548	570
Top Tube	507	518	535	549	565	581	596
Head Tube	83	83	103	119	142	166	190

\*Stack and Reach measured to top of integrated fork

## ONE / Specification chart

		BRAND	MODEL	SPECIFICATION
Frame Set	FRAME	Factor	ONE / ONE Disc	RGi Carbon
	FORK	Factor	ONE / ONE Disc	RGi Carbon
	SEAT POST	Factor	ONE	RGi Carbon. Zero and 25mm setback available.
	BARSTEM	Factor	OTIS Evo	Reach 125mm, drop 80mm. Multiple stem lengths and bar widths available
	HEADSET	CeramicSpeed	CeramicSpeed	1-1/8" CeramicSpeed bearings
	BB	CeramicSpeed	PF4630	Aluminium cups / CeramicSpeed bearings with Wheels MFG 24mm BBRight Reducers/Adaptors
Components	WHEELSET	Black Inc	Black Fifty / Fifty Disc	50mm deep Carbon Clincher with CeramicSpeed bearings
	TYRE	Continental	Grand Prix 4000 S II	25mm
	SADDLE	Fizik		7x9 Carbon Rails
	BAR TAPE	Factor		Black anti-slippery, shockproof





## *Factor bikes: in-house R&D and manufacturing*

Because we own the factory, we aren't confronted with the issue of asking our contractor to step outside of their comfort zone. We choose which fibres are best for our bikes, which resins will hold those fibres together and which construction techniques are most appropriate at each location of the frame and fork.

We exercise unlimited control over our bikes. While other companies are still trying to figure out how to produce a stiff and reliable 800 gram frame, we're onto the next challenge—making sure that bike has the right balance of stiffness so that it gives every rider the feeling of riding something organic, that rare quality we like to call "lively."

We are free to experiment with new ideas and because our ability to move from drawing board to prototype to production model is unmatched in the industry, we can innovate in fresh ways, like our Twin Vane down tube on the One. We created that not as a means to improve aerodynamics, but as a way to restore stiffness and ride quality to an aerodynamic design. Why create an aerodynamic road bike that is no fun to ride?

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