



# Factor O2



The O2 is our lightest road bike frame, featuring fully internal cable routing, and it excels like no other when the road points up and stays there. This ultralight frame is seemingly immune to gravity when climbing, yet also carves confidently and predictably through corners when descending.

# Colour Options



Gloss Carbon/Chrome

Israel Start-Up Nation Team Edition

Attaquer Limited Edition



Prisma Studio

# *Integrated Cable System*



Updated and redefined for 2020, the O2 now features fully internal cabling. Factor's engineering team have created an innovative ultralight internal cable routing system that maintains the frame's low-profile headtube, stiffness goals and tyre clearance, and even lowers the weight of the complete system. It's win-win.

Our complete integration system uses a D-shaped steerer tube, which is reinforced for impact strength and acts as a guide for hoses. A custom headset compression plug has been specifically designed to function like a standard plug, meaning it can be easily trimmed, maintained and adjusted.



# Highest Stiffness-To-Weight



Low weight doesn't have to come at the expense of ride dynamics and quality. Despite its status as Factor's lightest production bike, the O2 remains stiff and responsive under power, shattering the glass ceiling that has for too long been imposed upon ultralight performance frames.

Instead of relying upon a collection of temperamental and difficult to obtain ultralight components to hit target weights, we challenged ourselves to deliver weight savings within the chassis. The goal? To allow the O2 to be assembled into an ultralight bike with standard components, so its rider can enjoy the thrill of a featherweight bike with the reliability and compatibility of standardised kit.

What we have achieved with the O2 is a frame including all assembly parts with a weight of 677g unpainted (size 54, disc). Three paint finishes are available which vary between 20-45g in weight.

# Carefully Considered Integration



The O2 uses a standard size (1- $\frac{1}{8}$ ) upper headset bearing system to maintain the aesthetic beauty of the frame and retain the aero benefits over using a wider bearing. Unlike many manufacturers, the bearing width and headtube are not increased to facilitate an internal system. The end result is a beautifully integrated O2 that retains its elegant silhouette and improves aerodynamics by hiding the cables.

# Brilliantly Engineered



Applying Factor's ethos of zero compromises, the O2 is the result of the most substantial engineering breakthrough in carbon bike manufacturing in decades. Ultra high-pressure moulds allow the removal of excessive resin from our base material, making the carbon stronger, lighter and more efficient.

The O2 incorporates boron within the seat-tube. This allows a reduction in weight while adding both stability and strength. The resulting structural integrity dovetails with a meticulously designed BB junction, providing instantaneous power transfer. Textreme, a 'spread-tow' carbon fibre, is also used as the deepest layer, a fibre that is easily shaped into complex areas, meaning it can be used more efficiently. Pitch carbon fibre is the final addition and has been used in the top tube and down tube. It is ultra-high modulus and therefore astoundingly stiff.

# *A Perfect Match*

## *Black Inc TWENTY*

The new Black Inc TWENTY wheelset has been designed as the perfect complement to the O2. Crafted using a blend of ultra-high strength carbon fiber with reinforced rim walls, the clincher version weighs in at just 1,240g. The TWENTY offers complete synergy with the O2 as an ultra lightweight product that makes zero compromise to ride quality and dynamics.

The TWENTY clincher has a variable rim depth of 20mm at the spoke anchoring points and 18.5mm between the spoke holes. The rim profile is optimised for 25-28mm 700c tyres with an internal width of 21mm. The TWENTY features a revised hub construction with low-friction CeramicSpeed bearings and an updated freehub body engagement system.



# Black Inc TWENTY Specification

Type	Clincher
Wheelset Weight (set)	1240g
Hub	Black Inc + CeramicSpeed straight-pull disc hubset
Spokes	CX-SPRINT and CX- RAY Aero Butted straight pull (24 front and rear)
Clincher Nipples	Sapim 12mm Inverted Alloy Nipple with SecureLock
Rim Height	20mm - 18.5mm
External Rim Width	28mm
Internal Rim Width	21mm
Recommended Tire Width	25-28mm (700C)



# *Perfectly Balanced*



With WorldTour-proven handling, the geometry of the O2 is ready to descend as aggressively as you are, yet also deliver the comfort, stability and predictability to navigate your own multi-day mountain adventures. With consistent trail across the entire size range and progressive stack and reach, O2 Series fit is surprise-free and straightforward, regardless of size.

# Advanced Frame Design & Features

- Wide Stance Seat Stays -To help with lateral stiffness in the rear triangle while keeping the seat stays thin for compliance and comfort.
- Bottom Bracket - A meticulously designed BB junction provides instantaneous power transfer and serves as the beating heart of the O2.
- Svelte Fork - Numerous lay-ups and endless hours spent perfecting the design, every element of O2's Svelte Fork focuses on the ultimate goal of increased control, stiffness, and comfort.
- Lightweight Seatpost Clamp- Ultra-lightweight seatpost clamp with a large clamping area gives strong resistance to the seatpost and compatibility with thinner and lighter seatposts.
- Direct Mount Rear Derailleur Hanger - easy to install and improve shifting performance on certain systems.
- Split spacers - allow the rider to easily raise or lower the cockpit to suit their fit.



# Reviews



Lean, mean and incredibly nimble, the Factor 02 VAM Disc takes feather-weight road bike performance to a whole new level – it's practically faultless. – Five Stars

AARON BORRILL  
CYCLING NEWS



Factor has managed to innovate, and the VAM represents some of the best technology on the market. The end result is a WorldTour dream bike with a little individuality, which is a rare thing these days.

PETER STUART  
CYCLIST MAGAZINE

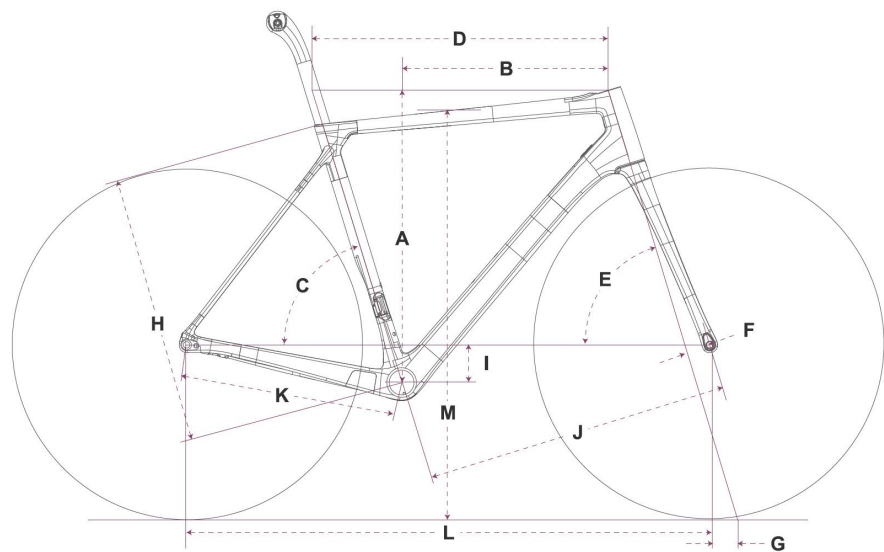


Factor made their name thanks to their meticulous engineering and performance-oriented designs. Remember when disc brake bikes were thought to be too heavy for a performance road bike? Factor continues to dispel such notions by cutting frame weight to make a 15-pound disc brake bike not just acceptable but preferable.

ROAD BIKE ACTION



# Race Tuned Geometry



**O<sub>2</sub>** ∨ ^ ^ M

Size	49	52	54	56	58
Stack	503	523	542	565	587
Reach	370	376	384	392	401
Seat Tube Angle	74	73	73	73	73
Top Tube	515	534	550	565	580
Head Tube Angle	71.3	71.6	73.1	73.3	73.3
Fork Offset	53	53	43	43	43
Fork Trail	60	58	59	58	58
Seat Tube Length	455	480	503	526	548
BB Drop	75	70	70	70	70
Front Center	576	587	577	590	605
Chainstay Length	406	406	406	406	410
Wheelbase	970	982	972	985	1005
Stand Over Height	727	750	772	794	820

# Specification Chart

		Brand	Model	Specification
Frame Set	Frame	Factor	VAM	ToXtreme®, Toray®, Nippon Graphite Pitch-Based Fiber
	Fork	Factor	VAM	Svelte / Svelte Disc
	Seat Post	Black Inc.	VAM	Zero and 25mm setback available
	Barstem	Black Inc.	VAM	Reach 80mm, drop 125mm. Multiple stem lengths and bar widths available
	Headset	Ceramic Speed	110 Series	1-1/8" bearings
	Head Tube Diameter			1-1/8 upper and 1-3/8 lower
	BB	CeramicSpeed	PF4630	Aluminium cups / CeramicSpeed bearings with Wheels MFG 24mm BBRight Reducers/Adapters
	Max Tire Clearance			30mm
	Wheel Size			700c
	Brake Type			Disc and Rim
	Front Axle			12 x 100mm thru-axle
	Rear Axle			12 x 142mm thru-axle
	Cable Routing			Internal
	Finish/Color			ISN Edition, Attaquer Limited Edition, and Gloss Finish with Chrome Details
	Manufacturer Warranty			5 year limited lifetime warranty



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