FAIRLIGHT

STRAEL 3.0

DETAILED DESIGN NOTES & PRODUCT OVERVIEW

DESIGN IS PROCESS

Dom Thomas
Co Founder and Bike Designer

There is so much truth in the words: ‘Design is Process’. The products that we make are the outcome of a long process of design; ideas, sketches, questions, drawings, method & tooling, samples & prototypes, repeated iterations and finally production. You get used to being told ‘no’ a lot, so it’s important to push back and find the middle ground, or to think your way around the limitations. If you are diligent and thorough with the process, the final product will look after itself. The Strael 3.0 has been in development for over 2 years with the creation of new tooling, new processes and new manufacturing partners in Taiwan who have the technology to develop our ideas. We continue to explore the limits of the material, while always looking to improve function and real-world usage. The following document explains some of the design decisions we’ve made.

THE VALUE OF COLLABORATION

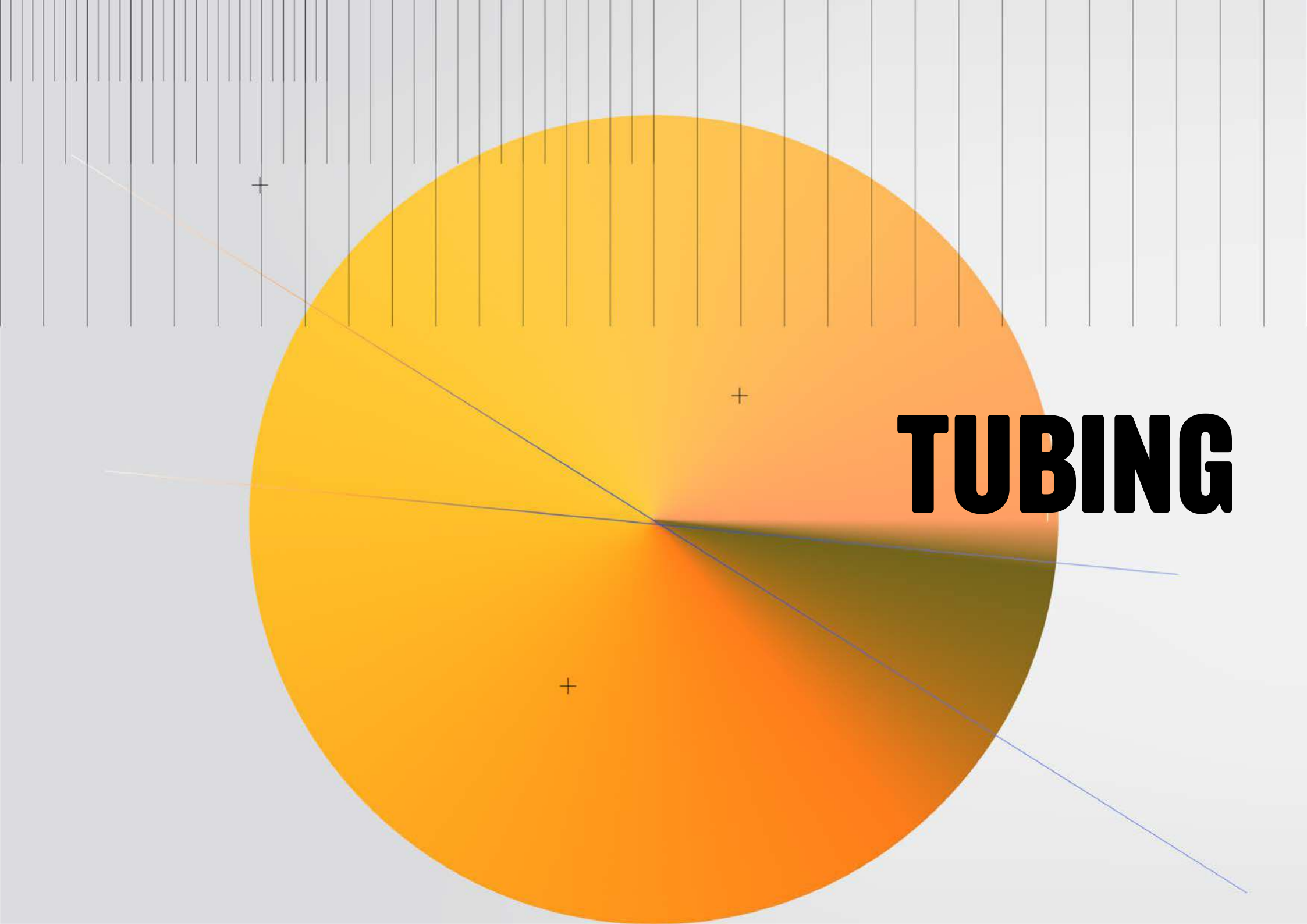
Collaboration in its truest form is not about marketing, or shared exposure, it’s about working with people that know more than you, to create something better. Without the work from our long term collaborators Reynolds Steel and Bentley Components, we couldn’t have made this product. Their respective knowledge of tube butting/forming and CNC machining, guides our design ideas and ensures what’s on the drawing can actually be manufactured. For the Strael 3.0 we’ve also had the pleasure of collaborating with digital design practice ‘Field.io’ who have engineered a pattern and aesthetic based on solar data, it reminds you to look up and take it all in!

Strael 3.0 – Concept

The Strael is our four seasons road bike. A bike designed with as little compromise as possible; the tube set and handling of a steel race bike with the function, utility and practicality of an audax bike. If riding on tarmac is your thing, then this could be the only bike you need. Fast and efficient with incredible comfort. It has confidence inspiring handling when descending and cornering at speed, with the tube forming and geometry working in harmony. We felt it would be difficult to improve on the Strael 2.0, so it's taken two years of development to further push the design forward; requiring new factories, new tooling, new tubing and new process. It's a fantastic product that showcases what is possible with the material, while offering unrivaled functionality and detailing.

Here is what is new on the Strael 3.0:

- Clearance for 36mm (width as measured) tyres.
- New Reynolds 853 downtube with revised butting profile.
- New Reynolds 725 chainstays with custom forming and shaping that is unlike anything you've seen on a steel frame.
- New size specific top tube and seat stays for sizes 61R and 61T. Designed for bigger, stronger riders.
- New Bentley x Fairlight Mk.2 dropouts.
- New Anraed 3.0 fork with internal dynamo routing and improved tyre clearance.
- 3rd bottle mount for endurance riding and full frame bags.
- New full dynamo integration for running rear lights.
- New solar pattern graphics.
- Colour matched fork as standard.

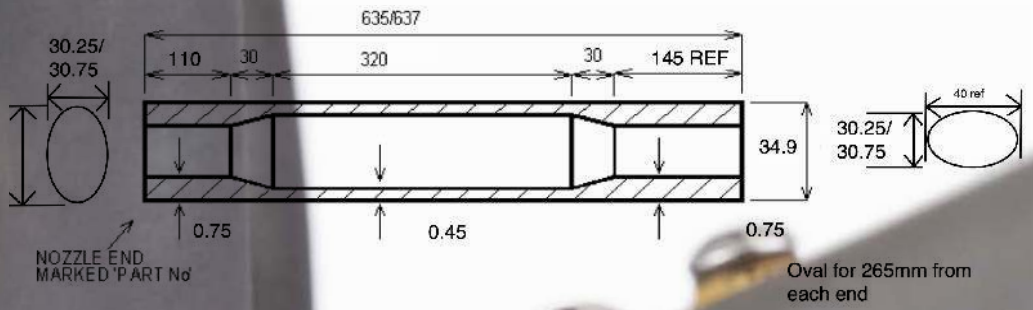

TUBING

REYNOLDS TECHNOLOGY

I've been working with Keith and his team at Reynolds Technology for over 10 years. They've become an extremely valuable resource and trusted partner; their tubing and specifically their butting knowledge is second to none. Butting lengths and tube shaping is something we consider a lot and to achieve the required design it will often involve using tooling from other tubes, or creating new tooling. There really is no substitute for experience and Keith and Dave will quickly tell me what is possible and what is not; often we end up somewhere in the middle!

I love making frames from this material and we are extremely proud to have the Reynolds badge and the words 'custom tubing for Fairlight' on our frames. The Strael 3.0 features a new downtube with re-designed butting profiles. We are now also using new larger top tubes and seat stays for the size 61R/T frames to add further stiffness for the largest frames. However the main new tubing feature of the Strael 3.0 are the Reynolds 725 chainstays we've developed. They are unlike anything you've seen on a steel frame; heavily formed and shaped to provide high levels of pedalling efficiency but also excellent comfort.

Dom



New - Reynolds 853 Down Tube - Custom for Fairlight
853 - 34.9mm - 30/40 bi oval - 0.75/0.45/0.75

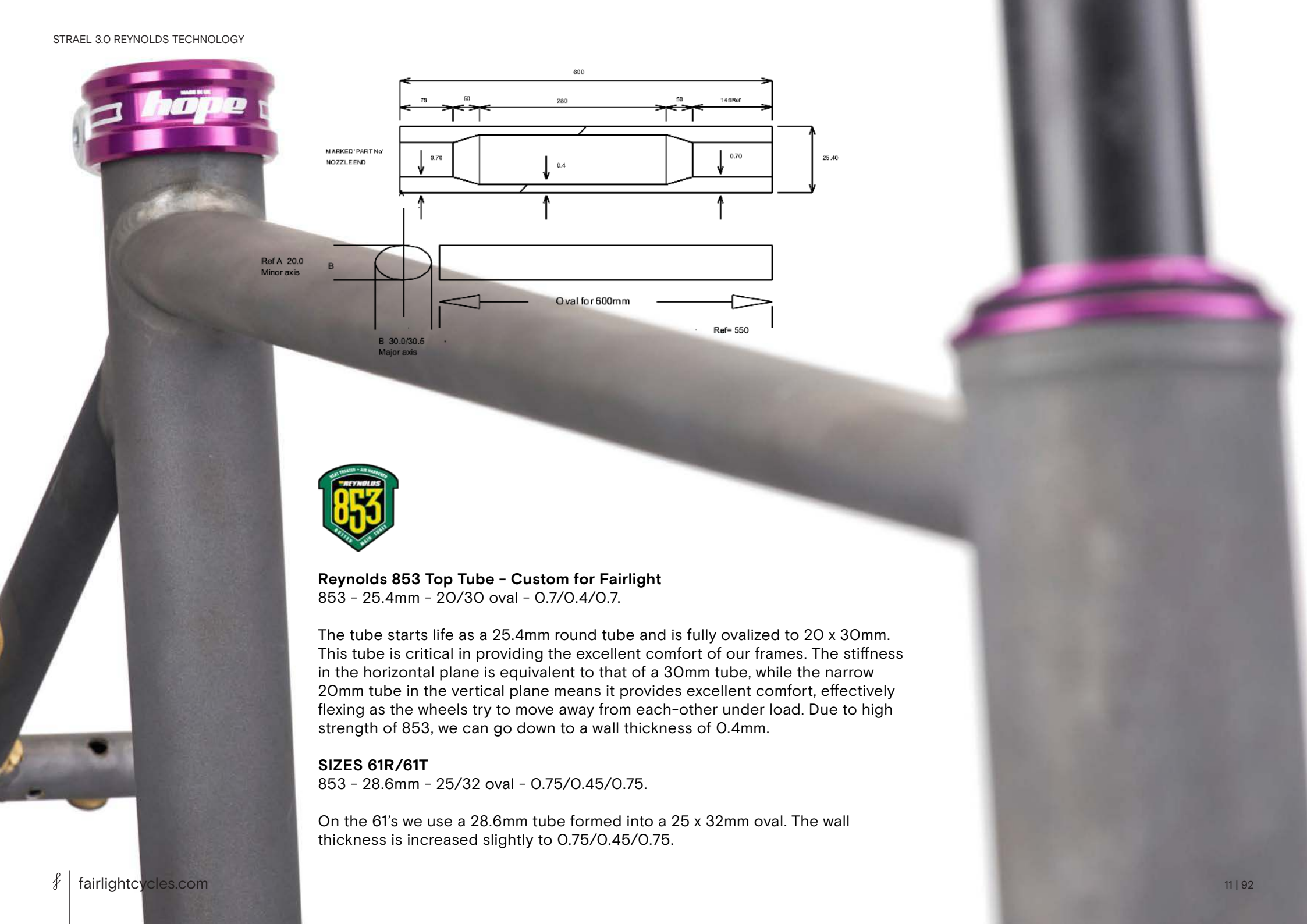
The tube starts life as 34.9mm round tube but is ovalized at both ends to become 30 x 40mm. The ovals oppose each-other; the 40mm horizontal oval at the BB shell adds lateral stiffness, where as the vertical 40mm vertical oval at the headtube resists the braking and ground forces from the most highly stressed area of the bike. While the tube size, shape of the tube remains the same as the Strael 2.0, we have changed the tube butting for the mk.3.
The tube was previously butted at 0.7/0.5/0.7, but we've reduced the centre section to 0.45mm while increasing the tube ends to 0.75mm. We gain strength at the tube ends (towards the welds) to cope with higher loading. The result is a stronger tube with a weight within 20g.

Reynolds 853 Seat Tube
853 - 28.6mm/29.8mm - 0.9/0.6/1.2

We use a standard butted seat tube designed for a 27.2mm seat post. The majority of the tube is 28.6mm in diameter, where as the top section is externally butted to 29.8mm to give the correct inner dimension for the seat post and to provide extra surface area for the top tube and seat stay welds. The tube is butted 0.9/0.6/1.2.

68mm Threaded BB Shell - 39mm Diameter

Tried, tested, proven. We are huge advocates of the standard 68mm threaded BB shell. There are a large number of press fit designs in the market, which really only exist due to carbon frame evolution. The larger physical size of the material/tubes means that real estate in the BB area is tight so the internal press fit cups/bearings help create space. A number of carbon makers are now moving to the T47 threaded solution which seems a much sounder standard [versus press fit] but the BB choices are still very limited and on a steel frame the extra shell diameter is simply not needed. On aluminium and titanium frames there are good reasons (tube sizes) to consider moving to T47 but on steel there is not. Our 40mm wide down tube combined with round chainstays means there is ample BB stiffness. For reliability, serviceability and sourcing of parts the 39mm threaded shell still reigns supreme on steel frames.



Reynolds 853 Top Tube - Custom for Fairlight
853 - 25.4mm - 20/30 oval - 0.7/0.4/0.7.

The tube starts life as a 25.4mm round tube and is fully ovalized to 20 x 30mm. This tube is critical in providing the excellent comfort of our frames. The stiffness in the horizontal plane is equivalent to that of a 30mm tube, while the narrow 20mm tube in the vertical plane means it provides excellent comfort, effectively flexing as the wheels try to move away from each-other under load. Due to high strength of 853, we can go down to a wall thickness of 0.4mm.

SIZES 61R/61T
853 - 28.6mm - 25/32 oval - 0.75/0.45/0.75.

On the 61's we use a 28.6mm tube formed into a 25 x 32mm oval. The wall thickness is increased slightly to 0.75/0.45/0.75.

4130 CHROMOLY

4130 - CNC'd Head Tube

The headtubes actually start off as solid billet and are turned into tubes on a CNC lathe. The headtube is 46.5mm in diameter, apart from at the ends where it is 47.8mm to provide sufficient wall thickness for fitting of the headset cups. The internal measurement is 43.95mm and is designed to accept a 1.5"-1.1/8" steerer tube using a ZS44/28.6 top cup and a EC44/40 bottom cup. The wall thickness of the headtube is 1.275mm. On a full carbon steerer tube, the tapered steerer really does make a difference to how the bike rides, especially under hard braking and high-speed cornering. The headtubes are made to order for our R and T frame sizes.

Reynolds 725 Non-Taper Seat Stays - Custom for Fairlight
725 - 14mm No Taper - 0.6mm wall.

Made from Reynolds 725 heat-treated steel they are 14mm in diameter and there is no taper. The heat treatment allows a wall thickness of 0.6mm. The majority of seat stays [on steel bikes] are 16mm in diameter and taper down to approximately 11-12mm by the time they reach the dropout. This is largely a hangover from when there were limited dropouts on the market and they were designed to accept a certain sized tube. As comfort is an important factor of the Strael we use a narrower 14mm stay.

SIZES 61R/61T
725 - 16mm - tapered to 14mm - 0.7mm wall

On the 61's we use 16mm seat stays with a 0.7mm wall. Stiffer and stronger for larger riders.

New - Reynolds 725 Chain Stays - Custom for Fairlight

725 - 22.2mm - 0.8/0.6mm.

The new chainstays are an important feature of the new frame, both in terms of increasing power transfer but also adding comfort. They are extremely difficult to form and make and are unique to Fairlight and the Strael 3.0. Visually they look different to what you expect on a steel frame. We've also increased tyre clearance for the new frame.

The chainstay is made from Reynolds 725, with a butting of 0.8/0.6mm. All of the forming is done before heat treatment. The forming and shaping is relatively severe so the post working heat treatment adds strength.

The chainstays are extremely wide in the horizontal plane while narrow and flat in the vertical plane. Pedaling forces are horizontal and ground/rider weight forces are vertical so the shaping of the chainstays provides excellent power transfer but also incredible comfort. The shaping of the tubes is so complex that we couldn't make them using traditional tube bending dies, but instead had to create CNC moulds from blocks of aluminium. By using this method the shaping is accurate and highly repeatable.

There is a 44mm clearance between the chainstays which allows for clearance for a maximum 700 x 36mm (width as measured) tyre. The chainstay length is 418mm.

The chainstays are horizontally wide (combined with a reduced taper) to resist pedaling forces, especially when out of the saddle. The chainstays is fully round at the BB and that shape is maintained well beyond the chainstay bridge.

This photo shows how flattened the chainstays are to encourage movement under forces from the ground/ rider weight and thus add comfort.

STRAEL 2.0

STRAEL 3.0

A comparison of the Strael 2.0 and Strael 3.0 chainstays. The difference is clearly noticeable. It is hard to believe they both use the same sized tubes (22.2mm), only the direction and extent of the forming is different.

Clearance with a 700 x 28mm Conti GP5000 on Hunt 4 Season rim

The tyre measures up at 29.02mm at 80psi

Clearance with a 700 x 32mm Conti GP 4 Season on Hope 20 Five rim

The tyre measures up at 33.2mm at 75psi

Clearance with a 700 x 35mm Panaracer Gravel King Slick 35mm on Hope 20 Five rim.

Please note: the new compatibility with 35mm tyres is to provide extra comfort for long distance and ultra endurance cycling, not to make the frame more appropriate for gravel. For a gravel bike the Secan is a better choice.

The tyre measures up at 35.84mm at 65psi

BOTTLE MOUNTS

The Strael 3.0 frame has 3 x bottle mounts. The 3rd bottle mount on the base of the downtube is a new addition since the Strael 2.0. The mounts on the seat tube are supplied with 2 x 3mm standoff washers so that a front derailleur band can be installed beneath the bottle cage. The mounts on the underside of the downtube are supplied with 2 x 8mm standoff washers so that the bottle cage clears the gear cables and the brake hose. All the standoff washers are made from stainless steel.

The seat tube and downtube bosses are positioned as low as possible to give room for a half frame bag.

58 & 61 Frames: We realize that the low cage position on the seat tube might be a bit of a stretch for the tall folks; therefore on the 58 and 61 sizes there is a 3rd boss on the seat tube to mount the bottle cage higher if you wish.

DROPOUTS

BENTLEY COMPONENTS

MK II

Mark Bentley is the man [and mustache] behind Bentley Components. He is an engineer for scientists by day and creator of beautiful bike parts by night. I started working with Mark 15 years ago when we both worked together at iconic British MTB and suspension brand Pace. He is an extremely talented designer, tool maker and CNC engineer. We are fortunate and grateful to be able to regularly collaborate with him on designs for Fairlight. He understands materials and specifically how to machine them and their limits; there is an enormous value in his hands-on experience. We are very proud to have the Bentley logo on our products and it truly is a mark of quality.

With first sketches of the new Mk II dropout all the way back in 2018, we are finally able to launch the new designs on the Strael 3.0! As with the Mk I all of the function is on display. If you saw the dropout and knew nothing about bikes, you would know straight away it was a technical part of the highest quality made for a specific functional purpose.

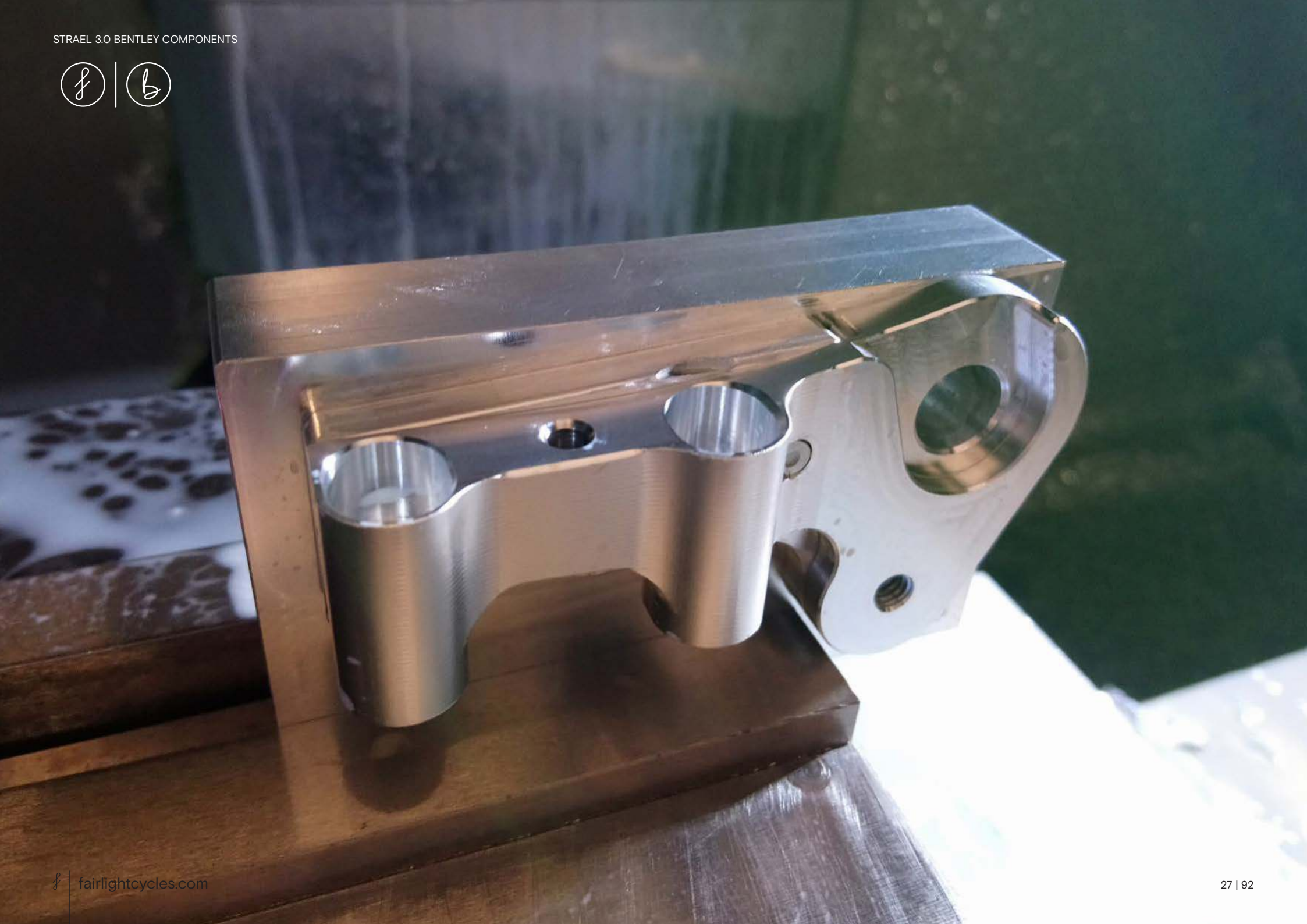
Dom

Fairlight x Bentley Mk II Dropouts

Visually there are some familiarities between the original dropout and the new Mk II version. The main difference is that the dropouts are now completely modular; the axle housing and disc mount are made from one piece of aluminium, while on the drive side the axle housing and hanger are also a single piece. Both sides are completely removable and replaceable. The stainless washer plate detailing remains but the plates are now larger and have multiple functional purposes. Firstly and most importantly, the plates act as washers for the mechanical fixing of the inserts to the frame. Secondly they provide useful space for detailing and torque information, such as the axle torque (12Nm); now visible directly beside the axle head. Finally we've used the stainless plates to act as protectors for the mudguard and rack eyelet. The eyelets are a common place for paint to chip when fitting mudguards and/or a rack.

The steel parts of the dropouts are 'fillet brazed' together and the ends of the stays are ground and hand filed to give a seamless transition between the tubes and the plate; these techniques are usually only reserved for the custom world. The aluminum inserts are CNC machined (as oppose to the cheaper mass production method of 'casting') because the level of machining detail from CNC really says everything about how much care we put into our products. We are really proud to be able to show you what is beneath the paint.


FAIRLIGHT
8 NM



Please note: Threaded hole on the base of the disc side insert is for routing of a rear dynamo wire. More info later in the document.


8 NM
AXLE: 12 MM
MK II


8 NM
AXLE: 12 MM
MK II

Here you can see how the plate protects the paint for the mudguard and rack eyelets, providing a stainless face to attach the parts to.


8 NM

MODULAR CABLE GUIDES

Modular Cable Guides

We use this system on all of our models. The cable guide is 3D printed which allows us to design and manufacture the intricately detailed part without requiring CNC machining or injection moulding. The guide is made from PA2200 Nylon which is strong and smooth. It has good chemical resistance and there is no strength degradation from UV exposure. The nylon has just the right level of malleability so that the surfaces fit together well with no risk of creaking. It is a great material for this application.

The part is beautifully simple and it only requires a single M5 threaded boss to secure it. It then utilizes an integrated pin which inserts into the Di2 hole to locate the part and stop it rotating. In the centre of the location pin is a 4mm hole which allows dynamo rear lights to be routed internally. A grub screw keeps the hole sealed when not in use. More on this feature further down in the lookbook.

There are specific guides for 1x and 2x. For using Di2 simply use the standard 6mm port below the guide. For SRAM eTap AXS a 6mm rubber bung is provided to cover the Di2 hole.

2x guide

1x guide

Di2 set-up

eTap AXS set-up

For extra clean lines, we recommend that when using Di2 you shrink wrap the wire to the brake hose. We do this as standard on all our Di2 full bike builds.

FABRICATION DETAILS & WORKMANSHIP


MADE IN UK
hope


MK II

FORK
ANRAED 3.0

Anraed 3.0 Fork

For the Anraed 3.0 fork we've machined an entirely new mould to make this product. We have re-designed the crown design to give better clearance with 35mm tyres. We have added internal dynamo routing that is fully-sleeved for easy installation. We've also made a long list of tiny updates to the fork, to improve the form and the ease of manufacturing. Some of these smaller modifications are covered in later pages.

Fork axle to crown length of 381mm. Fork offset of 45mm.

1.5"-1.1/8" tapered carbon steerer tube. 330mm long.

100 x 12mm thru axle dropouts. Supplied with axle. Axle length is 130.5mm and thread pitch is M12x1.5.

Flat mount brake fitting. Compatible with 140/160mm. Internal fully-sleeved disc hose routing.

Dropouts have 'proper' rack mount eyelets on the rear so no bending of mudguard stays needed.

Front and rear M5 mounts in the crown. Front for light mount, rear for mudguards. We chose threaded bosses versus a hole as they can be adjusted independently and it makes for a lot easier fitting.

Fully sleeved internal routing for a dynamo wire. Designed around a 3.5mm Son co-axial wire, but also compatible with a 3x4mm Supernova wire.

Tyre clearance: 700 x 37mm. With mudguards: 700 x 35mm

Weight: 440g with paint but without axle. 490g with paint and axle.

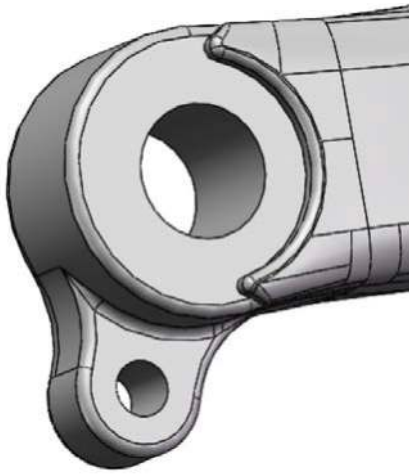
Forks are now colour matched to the frames on all colour options.

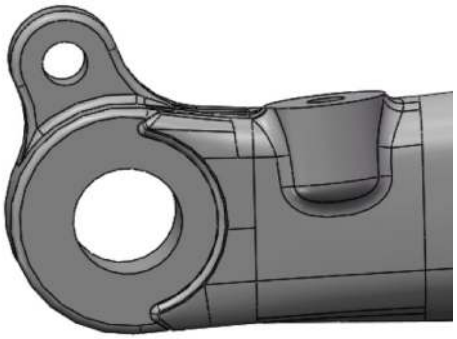
We've completely re-modeled the crown area to give better clearance with 35mm tyres, while also making space for a full internal sleeve for a dynamo routing. The new aesthetic form of the crown is more modern and contemporary.

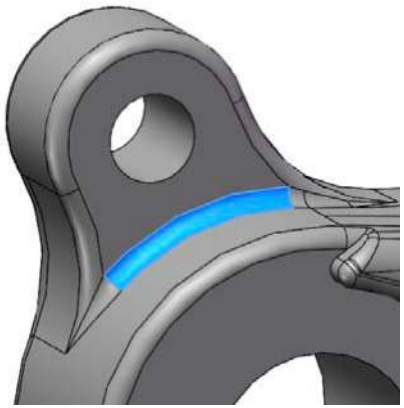
Pictured with a 700 x 35mm Panaracer Gravel King Slick on Hope 20 Five rim. The tyre measures up at 35.84mm at 65psi.


ANRAED 2.0
ANRAED 3.0
5mm extra clearance

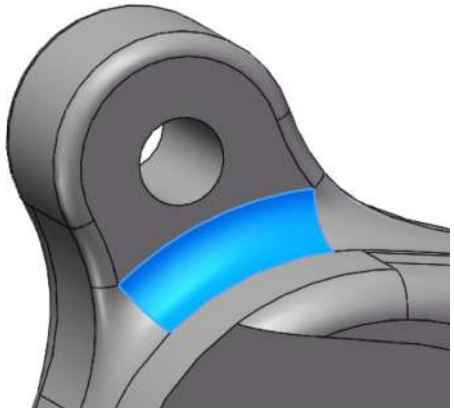
ANRAED 2.0







ANRAED 3.0



Dropout slot

We've increased the definition of the dropout slot. It is now a full slot rather than just a radius. This made post mould CNC easier and makes an improved interface.

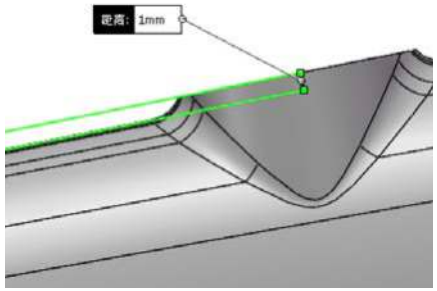
Flat mount boss

We've modified the design of the flat mount boss/surface so that it is aesthetically cleaner. it also allows for easier forming.

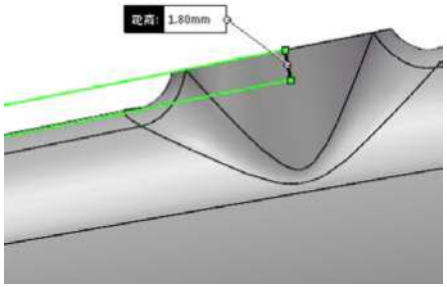
Mudguard eyelet

The radius between the dropout and the mudgaurd eyelet has been increased from R1 to R2.5. This gives a smoother finish and improved aesthetic.

ANRAED 2.0



ANRAED 3.0



Flat mount boss

We've increased the height of the flat mount boss from 1mm to 1.8mm. This is to allow easier masking during paint.

Re-shaping of the legs

We've modified the design of the rear of the legs to give a smoother shape and an improved aesthetic.


FAIRLIGHT

Pictured with a SON Edelux 2 lamp.

The dynamo exit hole at the crown is positioned to give super clean ‘non-obtrusive’ wire routing and to keep the wire away from the tyre.

The internal wire routing is fully sleeved. Simply push the wire in by hand and it will exit at the bottom of the leg.

SON Edelux 2 lamp with co-axial port for charging a battery pack.

Simply solder a male co-axial fitting to your choice of dynamo powered USB charger.

Pictured USB charger is the Sinewave Revolution. Tried, tested and recommended by a number of Fairlight riders, staff and ex-racers.

Male co-axial fitting soldered to the charger.

REAR LIGHT ROUTING

Rear Light with Mechanical Gears

As already mentioned in the cable guides section, our modular 1x and 2x cable guide are fully dynamo compatible. Simply remove the grub screw to reveal a 4mm hole for the wire to be routed through. The hole size is compatible with SON and Supernova wires.

Rear Light with Di2

If using Di2 then the dynamo wire needs to be routed through the M5 boss which is used to secure the cable guide.

Rear Light with SRAM eTap AXS

For etap put a blanking bolt into the M5 thread and use the 6mm Di2 hole for the dynamo wire. The frame is supplied with a rubber grommet for the wire.

Dropout Mounted Lamp on Drive Side with Mechanical Gearing

In choosing locations to mount a rear dynamo light, our preference is to mount it on the dropout. Alternatively on the back of a rack or the back of the mudguards, but only if either is planned to be permanent. Rear lights mounted on the back of the seat tube or back of the seat post can be obstructed by saddle packs, especially on smaller frames. We like this dropout location as other parts can be fitted or removed without it affecting the light, apart from maybe having to space it out or change eyelet. The other benefit is that the light marks the edge of the bike and thus a driver is likely to give you more space.

If mounting the light on the drive side then there are 2 x 7.5mm ports to choose from. In this instance we've used the top one and shrink wrapped the wire to the derailleur housing.

Grommets are supplied with the frameset/bike for SON and Supernova wires.

Dropout Mounted Lamp on Drive Side with Di2 Gearing

If using Di2 and a dynamo then we recommend using the port on the underside of the chainstay for the Di2 wire and using the port on the top for the dynamo.

Dropout Mounted Lamp on Drive Side with SRAM eTap AXS gearing

For eTap you can choose to use either port for the dynamo and use a blanking grommet in the other. We think the bottom port gives the neatest routing.

Dropout Mounted Lamp on Disc Side

If you ride on the right hand side of the road (most of Europe and the US) then we recommend that you mount the light on the disc side. There is a port on the underside of the chainstay and we've added an M5 thread and clip into the bottom of the aluminium dropout insert. The result is super clean routing of the wire. The additional wire routing clip is supplied with the frameset/bike.

Rear Rack Mounted Light

We recommend Tubus rear racks and you can route the wire directly into the rack leg. The additional wire routing clip is supplied with the frameset/bike.

Simply drill a 4mm hole into the rack for the wire to enter/exit.

Please note: This will almost certainly void the warranty of the rack but is a relatively common modification in the custom world. With the wall thickness of the rack tubing it won't cause an issue.

Routing for Chainset Axles Larger Than 24mm - to Driveside

If using a chainset with an axle larger than 24mm (e.g. SRAM DUB-29mm, Praxis-30mm, Hope-30mm) then there is not enough room to route the dynamo wire through the BB shell. Therefore we have an additional 6mm dynamo port at the base of the downtube so the wire can enter/exit in front of the BB shell.

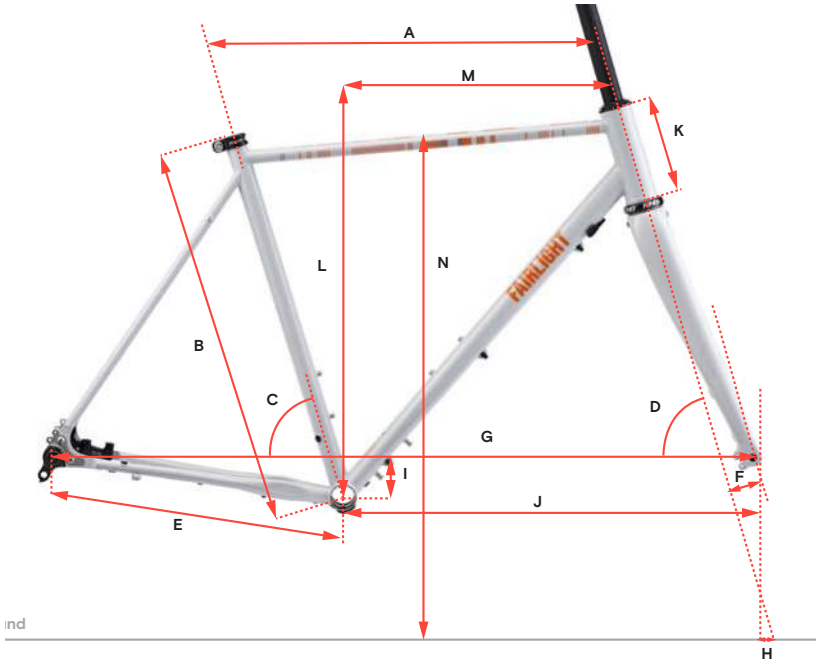
If mounting the rear light on the drive side the wire can enter/exit back into the chainstay via another 6mm port, A clip on the BB cable guide holds the wire and keeps it tidy.

Routing for Chainset Axles Larger than 24mm - to Disc Side

Again exit/enter the wire at the port in front of the BB shell. Then join the lighting wire to the brake hose using short sections of heat shrink, between the hose guides. Follow the brake hose all the way to the dropout where the dynamo wire can then be routed away from the brake hose by using the clip on the bottom of the brake mount.

GEOMETRY

The Strael 3.0 geometry is unchanged from the Strael 2.0. The handling of the bike is sublime and we could see no obvious way to improve it for its intended usage. We continue to offer proportional geometry, with five sizes and two headtube lengths (R & T) for every size. So 10 size options all together. See the 'find your fit' section of our website for more information.



	Size	51R	51T	54R	54T	56R	56T	58R	58T	61R	61T
A	Top Tube Horizontal	536	531	550	545	566	558	580	573	594	594
B	Seat Tube (BB to top ST)	510	514	532	536	545	557	564	575	583	592
C	Seat Tube Angle	74	74	73.5	74	73	73.5	73	73.5	73	73.5
D	Head Tube Angle	72	71.5	72.5	72.5	73.5	73	73.5	73	73.5	73
E	Chainstay Length	418	418	418	418	418	418	418	418	418	418
F	Fork Rake	45	45	45	45	45	45	45	45	45	45
G	Wheelbase	993	993	998	999	1000	1002	1014	1017	1028	1039
H	Trail - 700x 28 = 685mm	63	66	60	60	54	57	54	57	54	57
I	Bottom Bracket Drop	68	68	68	68	68	68	68	68	68	68
J	Front Center Distance	585	585	590	590	592	594	605	609	619	630
K	Head Tube Length	110	140	130	160	140	180	160	200	180	220
L	Stack	530	557	551	579	564	600	583	619	602	639
M	Reach	383	370	386	378	394	380	402	389	410	405
N	Standover height (with 700x28 tyre)	764	779	784	801	795	821	815	839	834	857
	Fork Length - Axle to Crown	381	381	381	381	381	381	381	381	381	381


00:00
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00:48
05:00
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23:00
WEIGHTS
0:12
0:24
00:36
00:48
01:00
01:12
01:24
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01:48
02:00

Strael 3.0 - Frameset

Painted frame without bolts, rear axle & dropout inserts:

54R frame - 1,922g
56R frame - 1,942g
56T frame - 1,962g
58R frame - 1,962g

Bolts, rear axle and dropout inserts = 208g

Anraed 3.0 Fork:

440g with paint but without axle.
490g with paint and axle.

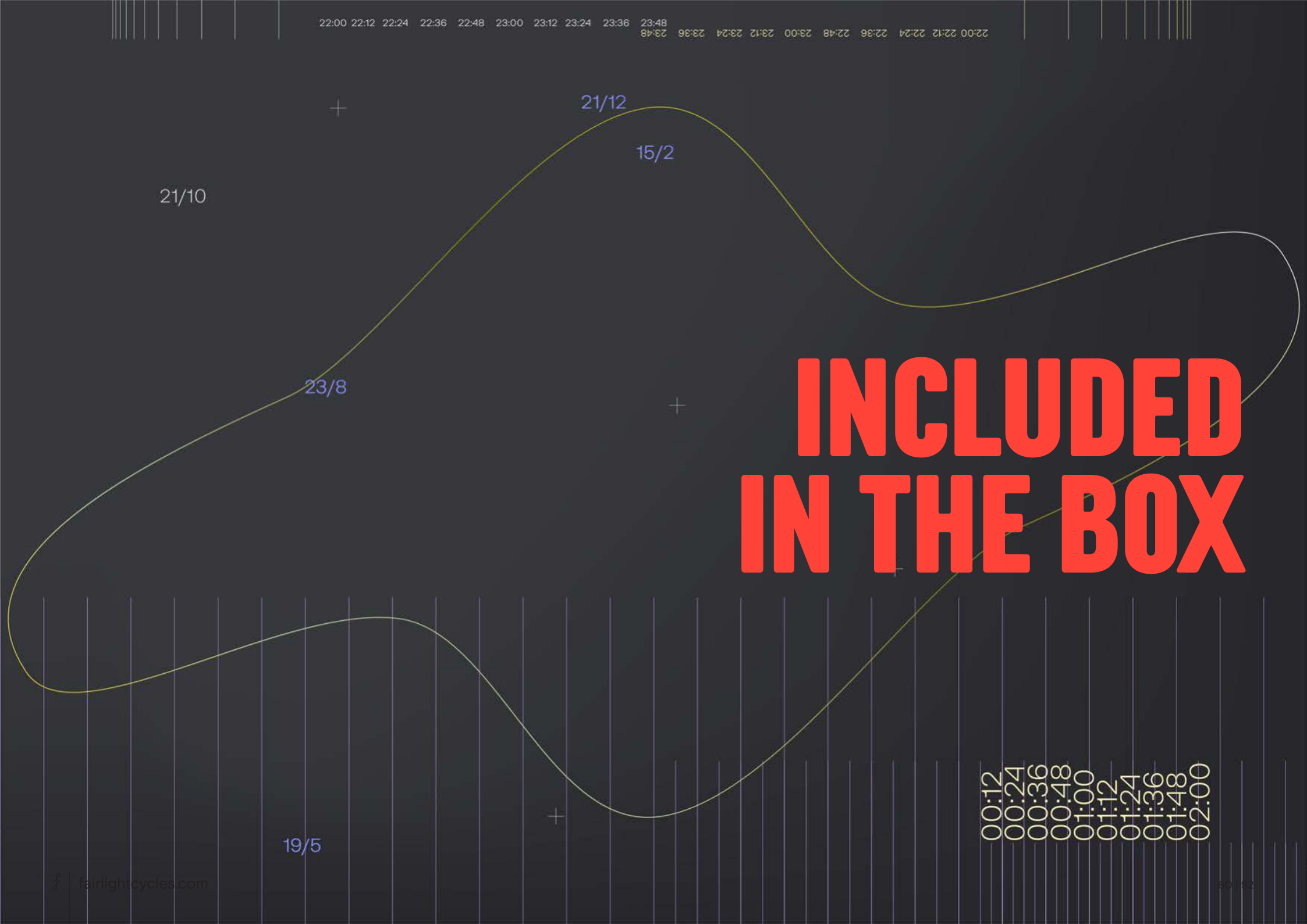
Frame and fork weight - including paint, all bolts, dropout inserts etc. So as pictured to the left but excluding headset and seatclamp.

54R - 2,620g

Strael 3.0 - Full build example

Weights of our most popular Strael build. Ultegra spec with Hope headset/seat clamp upgrade. All other parts standard spec (e.g. Hunt 4 season wheels, Conti GP5000 tyres, FSA SLK/Energy premium finishing kit, Fabric Scoop saddle).

54R - 8.88Kg
56R - 8.90Kg
56T - 8.92Kg



INCLUDED IN THE BOX

STRAEL 3.0 FRAME

Please Note:
The frameset is supplied with grommets for both SON and Supernova wiring.

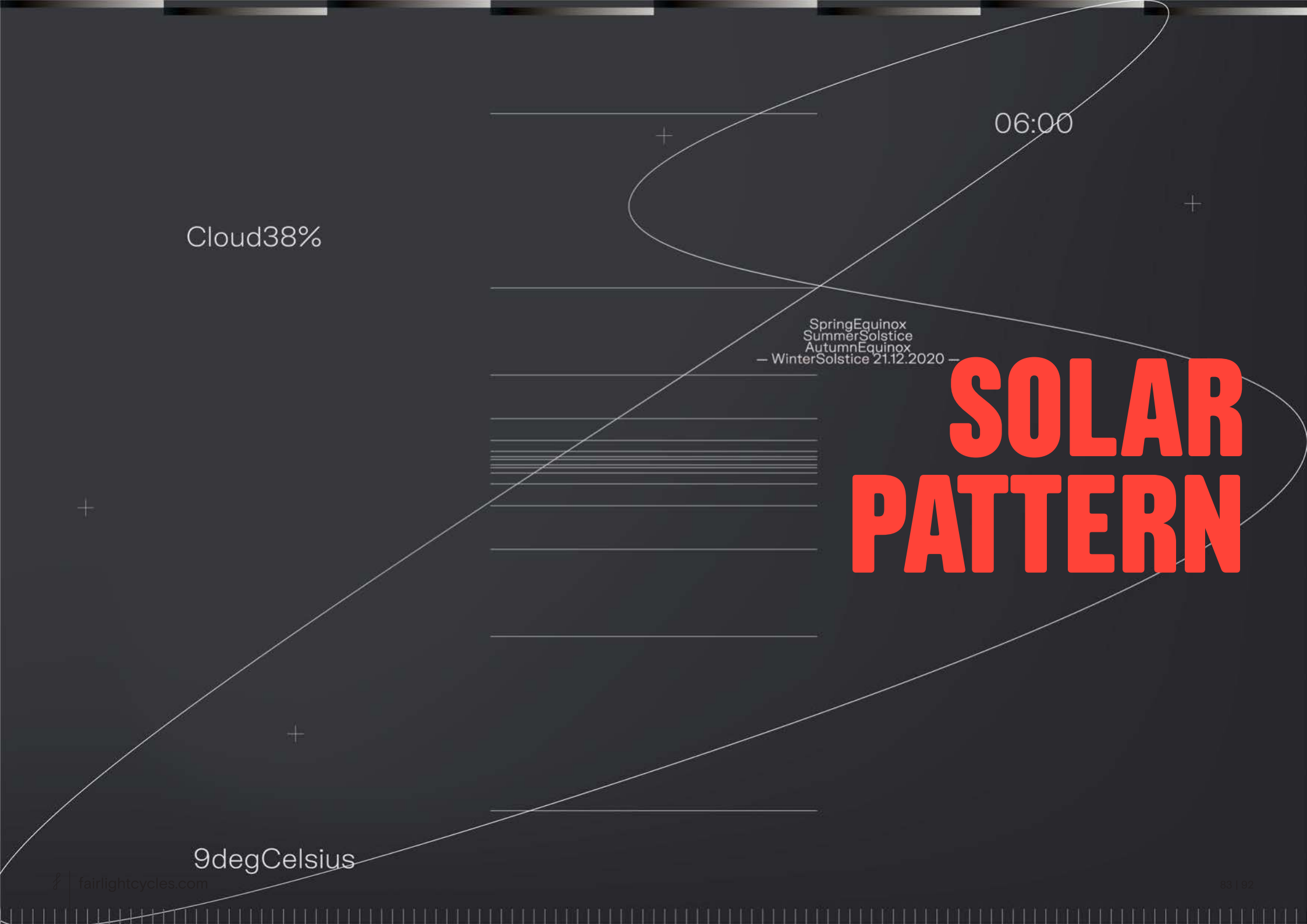
A B C D

Please Note:
The frameset is only supplied with: A - 1x guide, B - 2x guide, C - Di2 grommet set, or D - etap set.

ANRAED 3.0 FORK

Please Note:
Forks supplied with framesets and full bikes come with stainless silver bolts. Forks sold seperately (raw carbon with matte lacquer) come with black bolts.

Please Note:
The fork is supplied with a sachet of carbon anti-slip paste. To be used when installing the compression bung.


06:00
Cloud38%
SpringEquinox
SummerSolstice
AutumnEquinox
— WinterSolstice 21.12.2020 —
SOLAR
PATTERN
9degCelsius

FAIRLIGHT

F I E L D IO

A collaboration between Fairlight and Design Studio FIELD.IO

I met Marcus in summer 2019 when I was walking through Broadway market. I spotted a man drinking a coffee, perched beside his Strael 2.0. I walked on by at first but then thought I should go and say hello to thank him for choosing a Fairlight and ask if he was enjoying his Strael. It turned our that Marcus was one of the co-founders and partners at digital art/design practice FIELD.IO (and FIELD.SYSTEMS). I was blown away by the quality and innovation of their work and I wasn't surprised to see their portfolio included substantial projects for the likes of Nike, Adidas and IBM.

A few emails and a couple of chats later and we decided to work together on a new pattern aesthetic for the Strael 3.0. Something abstract but with a distinct narrative and a story behind it.

There is always a value in saying "hello".

Dom (Fairlight)

FIELD was founded in 2009 by Vera-Maria Glahn + Marcus Wendt in London, UK as an experimental digital art + design practice.

Over the last decade the studio has evolved into FIELD.SYSTEMS, a hardworking brand design + innovation consultancy and the ever playfully experimental platform FIELD.IO.

Working with physical, interactive spaces as well as high-end digital imagemaking, the studio is known for creating artful experiences with cutting edge technical expertise, and a humanistic vision for design.

Why we ride

There are many reasons why we ride bikes; to commute to/from work, for a weekend spin with friends or a solo journey across the continent. However fast, cycling has a pace that gives you the distance of a close observer, never too attached to any one point.

You're in your own head, slightly removed from the "normal world" – and yet directly exposed to the elements; at the mercy of the earth's wrinkly surface, the sun's natural clock and it's warming rays. This duality is essential to riding.

And then, at the peak of that climb, when the view opens up on that descent, when the sun breaks through that tunnel of trees, is when the inner and outer converge: when your perception of the surroundings reflect what you feel inside. You are one, you are in tune. The world expresses yourself.

Can we grasp it, even measure this feeling? It doesn't have a name like "runners' high" or "flow", but we all know it. This universally human, physio-psychological balance we seek, the balance with nature – and at its core is the light, and how we're positioned to it.

This is why we ride. Bikes are our navigational instruments for seeking these moments, this balance – not more, not less.

Marcus (FIELD.IO)

Solar Pattern: Inspiration

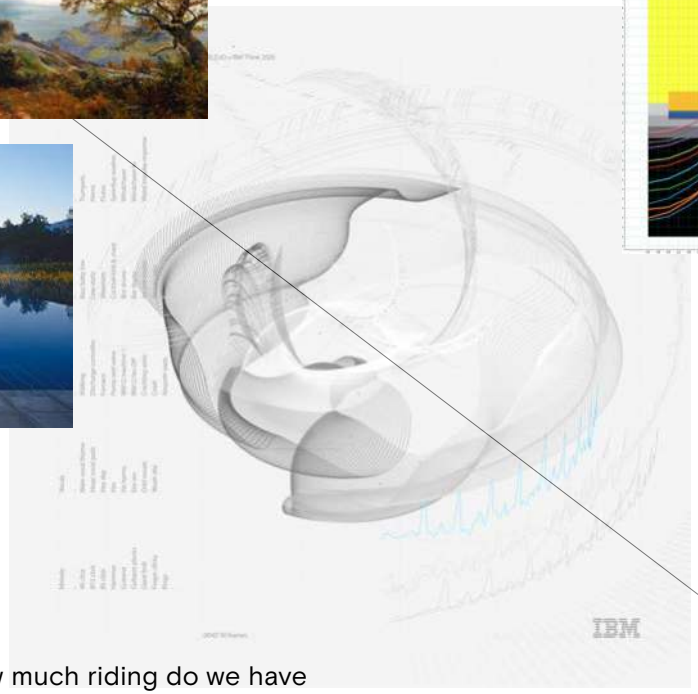
Intuitively drawn to the name, we looked into its origin and meaning: **Fairlight** expresses a fondness for those personal, special moments of experiencing nature. Light as a volume has fascinated people for centuries.

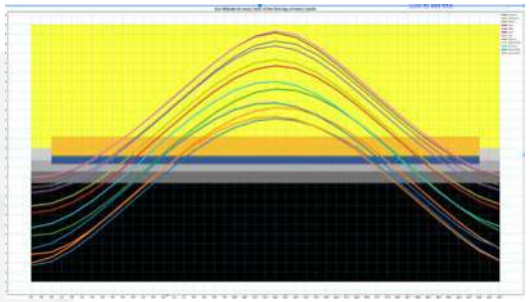
Fairlight a coastal village in East Sussex, England [1] a fair, bright, clear light; A notion for the special atmospheric + visual conditions near the coast when sunlight meets humidity from the sea at special moments during a day; creating an experience of a “volume of light”

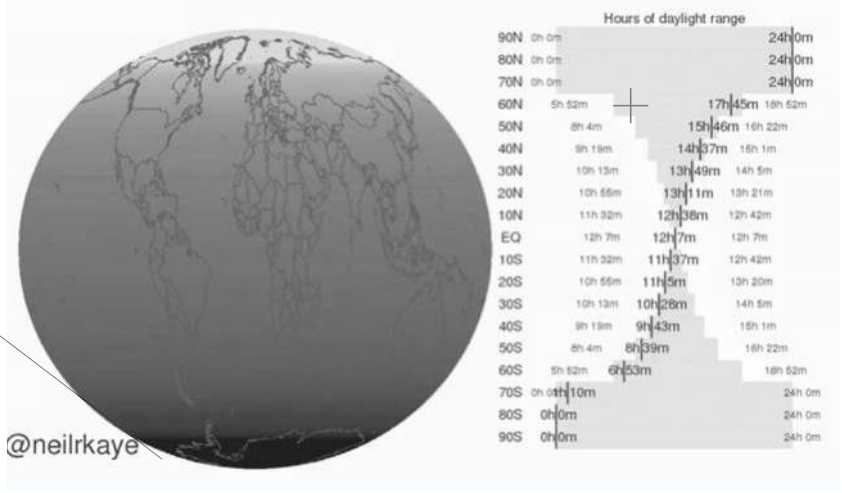
To match Fairlight’s **design philosophy**, we were looking to express this phenomenon through a functional, graphical visualisation, with the air of a watch face or compass – after all, bikes are our navigational instruments for seeking out those moments of balance.

The model name **Strael** confirmed what data sources we should be looking at: the terms of altitude, azimuth, and radiation – how science describes our position to the sun – became our inspiration for the Solar Pattern.

Strael
Strael (English) / Strahl (German)
from proto-germanic *strēlaz, *strēlō
(“arrow, ray, beam”)...







Images:

Sidney Richard Percy
A Peep at the Sea, Fairlight Glen (1859)

James Turrell
Pool Pavilion Forest, Napa Valley, CA

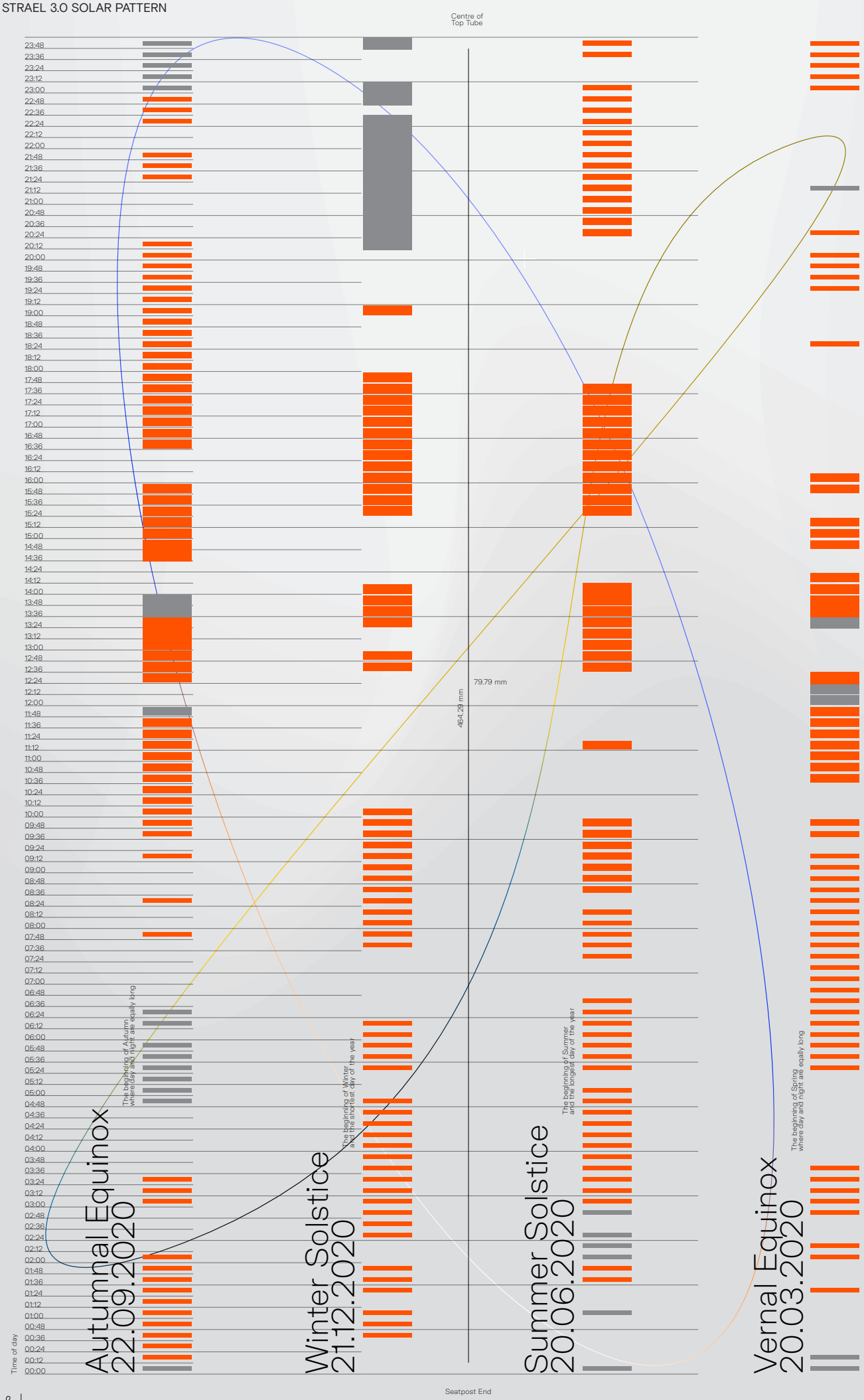
How much riding do we have left today and this season?

Solar Pattern: Concept

The Strael 3.0 Solar Pattern is a minimalist visualisation of solar data. It represents sun exposure in London on 4 specific dates of the year 2020: the solstice and equinox dates, the extreme points of the sun's movement through the year.

The Solar Pattern on your top tube serve a humble but poetic purpose: They remind you that no day is the same, that every day is worth getting out and rebalancing yourself with your surroundings. When you're head down and pushing hard, they remind you to look up and make sure you take it all in.

For us, this is a key characteristic of the Strael 3.0 and all Fairlight Cycles: they give you the smooth glides along country lanes, the happiness to be outside and breathe in the morning air. The daily rides, all year long, finding and keeping your own rhythm, harmony with yourself and nature.


Centre of Top Tube
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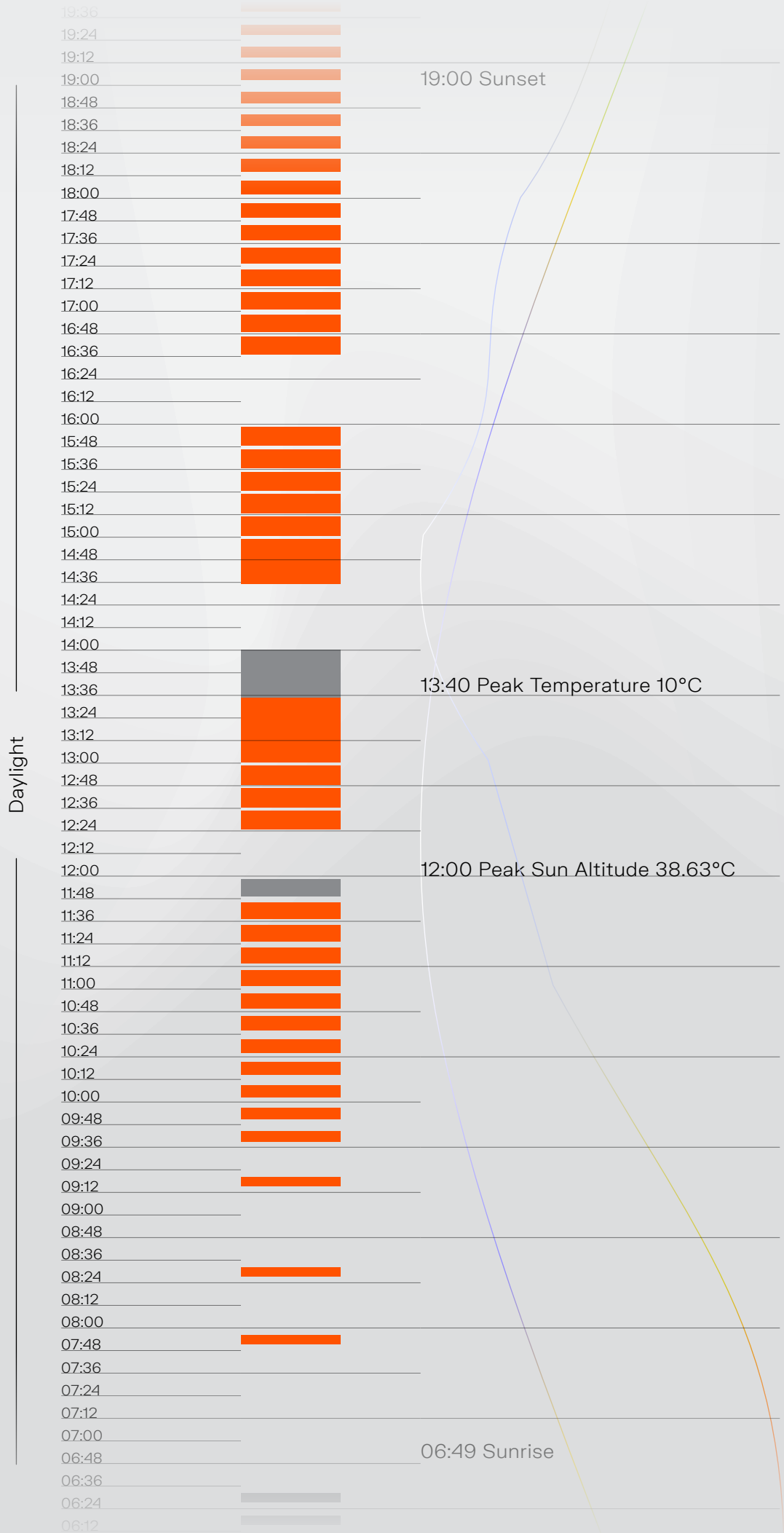
Autumnal Equinox
22.09.2020
The beginning of Autumn
where day and night are equally long
Winter Solstice
21.12.2020
The beginning of Winter
and the shortest day of the year
Summer Solstice
20.06.2020
The beginning of Summer
and the longest day of the year
Vernal Equinox
20.03.2020
The beginning of Spring
where day and night are equally long
79.79 mm
464.29 mm
Seatpost End

Autumnal Equinox 22.09.2020

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FAIRLIGHT

Studio Photogrpahy: Nick Hill @ NMDesign