E-118 PRO

LEAN AND MEAN

ARGON 18

WE KNOW A THING OR TWO ABOUT PERFORMANCE

For the last twenty years, we have been collaborating closely with top athletes at the highest levels of road cycling, triathlon and track. Athletes riding our bikes succeed in all of these disciplines because we work tirelessly to provide them with state-of-the-art products designed for their specific needs.

16 MEDALS

MOST DECORATED CYCLING BRAND AT THE 2019 TRACK WORLD CHAMPIONSHIP

3:48.012

TEAM PURSUIT WORLD RECORD FOR CYCLING AUSTRALIA ON THE ELECTRON PRO

2 GRAND TOUR PODIUMS

GIRO AND VUELTA 2018 FOR MIGUEL ANGEL LOPEZ OF ASTANA PRO TEAM ON THE GALLIUM PRO

1:56:32

70.3 WORLD RECORD BIKE SPLIT (BAHRAIN 2018) FOR CASPER STORNES ON THE E-119 TRI+

YEARS OF ACCUMULATED KNOWLEDGE WERE USED TO CREATE OUR NEW TRI/TT PLATFORM

In our many years of working with great athletes and teams, we have been able to collect invaluable data and information that has helped us build a unique expertise in carbon lay-ups and aerodynamics. Through the combined use of this expertise and proprietary technologies, we are now ready to roll out an all new generation of the E-118 Tri/TT platform.

E-114

2008

2012

E-118

NITROGEN

2015

2016

E-119 TRI+

2017

ELECTRON PRO

2019

E-118 PRO

FROM A NEW GENERATION TRI/TT PLATFORM BUILT USING A PRO LEVEL, LIGHTWEIGHT, HIGH-END CARBON LAY-UP.

TRI AND TT MACHINE

DESTINED FOR GLORY!

At this level of racing every second counts so, we have applied all our knowledge and skills into providing Miguel Angel Lopez with a bike that can match his ambition:

- Win the Giro.

The E-118 Pro is the result of an already-winning collaboration with Astana Pro Team.

ARGON 18

WHY DISC BRAKES?

IT IS GENERALLY BELIEVED THAT BIKES EQUIPPED WITH DISC BRAKES ARE HEAVIER AND LESS AERO. THIS DOESN'T APPLY TO THE E-118 PRO. NO BIKE CONCEPT COMES OUT OF ARGON 18 IF IT DOESN'T BRING SOMETHING NEW AND DISTINCTIVE TO THE PARTY AND THE E-118 PRO IS NO EXCEPTION TO THAT RULE. WE MADE SURE IT WOULD MEET ALL OUR STANDARDS AND THEN SOME. **THE E-118 PRO IS TRULY A NO COMPROMISE BIKE.**

EASIER MAINTENANCE

Once properly installed and set up, disc brakes require far less maintenance than regular rim brakes. They also make wheel swaps easier since there is no more need to change brake pads when switching from alloy to carbon wheels. These are real benefits even for pro cyclists whose bikes are tended to by professional mechanics on a daily basis.

BETTER BRAKING

It has now become common knowledge that disc brakes offer better braking performance and adjustability than traditional rim brakes regardless of weather conditions. Their performance when cornering also adds to their advantage.

MORE CLEARANCE

Another advantage of the E-118 PRO over its predecessor is better tire clearance. Once again, this is due to the disc brakes. Riders can now choose tires right up to 28C (30mm), a major improvement over the 23mm tire clearance of the E-118 Next.

250G

WEIGHT SAVING COMPARED TO E-118 NEXT (SAME BUILD)

Usually, incorporating disc brakes to a bike design will add about 400g to the total weight of the bike. Therefore, to launch a new Triathlon bike that is lighter than its predecessor while equipped with disc brakes is no mean feat.

ARGON 18

REAL-LIFE TESTING

Although CFD and wind tunnel testing give a fairly accurate picture of how a bike will behave, nothing beats real-life tests. Through our collaboration with Astana Pro Team, we were able to take prototypes of the E-118 Pro to the velodrome and on the road for some serious testing at the hands of the most uncompromising riders. Here are the results of these tests.

WORLD TOUR PERFORMANCE GAINS MADE AVAILABLE

Astana Pro Team, with whom we have been working for two years, has had a long history of successes including victories in all of the Grand Tours. Therefore, the team never settles for second best when it comes to equipment. Because every possible performance gain will make a difference in the toughest races, we made it our top priority from the very start of our collaboration to supply them with faster, more aero and reactive bikes. Bikes that provide better stability, corner better, and display superior braking abilities in all conditions.

Our new E-118 platform is the result of long discussions with the team regarding their specific Time Trial needs. They wanted a lighter, faster bike with a more aggressive positioning range.

In the design phase, we used CFD to benchmark ideas, define a new pro level carbon lay-up, and help us integrate disc brakes without penalizing aero performance.

Once we settled on a final design and carbon lay-up, we supplied Astana with prototypes to be tested by team members in the velodrome and on the road to validate the concept and corroborate gains that we were seeing in simulations.

The TT version of the platform is now ready to race, and the Triathlon version of the very same bike, the E-118 Tri+, will soon become available for purchase.

PERFORMANCE
GAIN VALIDATION IN THE VELODROME

IN OCTOBER 2018, HUGO HOULE OF ASTANA PRO TEAM WAS THE FIRST RIDER TO TEST THE E-118PRO PROTOTYPES IN THE VELODROME. GORKA IZAGIRRE AND PELLO BILBAO FOLLOWED IN DECEMBER 2018.

With Notio, our own device that calculates CdA in real time, installed on their bikes, it became really easy for them to compare the new bike with the previous generation E-118 Next. Both E-118 Pro prototype and E-118 Next were set up exactly the same way (tire model and technology, wheel profile – 3 spokes front, Disc rear). Notio was also used to validate that the rider position wasn't interfering with the results.

With gains of 8 to 10 watts depending on the rider (at 50km/h), it became clear that our new disc equipped TT bike was faster than the previous generation bike with rim brakes.

» AT A SPEED OF 50KM/H, IT REPRESENTS A TIME GAIN OF 25S ON A 40KM DISTANCE.

TEST PROTOCOL: STABLE AT 45KM/H – 10 LAPS. (2 LAP TO ACCELERATE TO 45KM/H)
3 RUNS WITH E-118 NEXT (FORMER BIKE – RIM BRAKES), 3 RUNS WITH E-118 PRO (NEW BIKE – DISC BRAKES).

RUN	DESCRIPTION	AVG. POWER RUN	RUN AVG.SPEED (KM/H)	CDA	POWER AT 50KM/H	DELTA POWER AT 50KMH	TIME TO 45KM TT	DELTA TIME
	GORKA IZAGIRRE							
1	Argon 18 E118 Next	313w	45.24	-0.0013	421w	-2w	54m31s	-6s
2	*Argon 18 E118 Next*	*317w*	*45.35*	*Reference*	*423w*	*–*	*54m37s*	*–*
3	Argon 18 E118 Next	324w	45.77	-0.008	422w	-1w	54m34s	-3s
4	**Argon 18 E118 PRO TT**	**312w**	**45.28**	**-0.057**	**415w**	**-8w**	**54m15s**	**-22s**
5	**Argon 18 E118 PRO TT**	**314w**	**45.34**	**-0.051**	**415w**	**-8w**	**54m16s**	**-21s**
6	**Argon 18 E118 PRO TT**	**310w**	**45.43**	**-0.046**	**416w**	**-7w**	**54m19s**	**-18s**
	PELLO BILBAO							
1	*Argon 18 E118 Next*	*304w*	*46.41*	*Reference*	*377w*	*–*	*52m33s*	*–*
2	Argon 18 E118 Next	302w	46.44	-0.020	374w	-3w	52m25s	-8s
3	Argon 18 E118 Next	296w	46.23	-0.032	372w	-5w	52m20s	-13s
4	**Argon 18 E118 PRO TT**	**302w**	**46.68**	**-0.069**	**367w**	**-10w**	**52m05sec**	**-28s**
5	**Argon 18 E118 PRO TT**	**298w**	**46.66**	**-0.061**	**368w**	**-9w**	**52m08s**	**-25s**
6	**Argon 18 E118 PRO TT**	**286w**	**45.78**	**-0.055**	**369w**	**-8w**	**52m11s**	**-22s**

PERFORMANCE
GAIN VALIDATION ON THE ROAD

HAVING AN AERO BIKE ISN'T EVERYTHING.

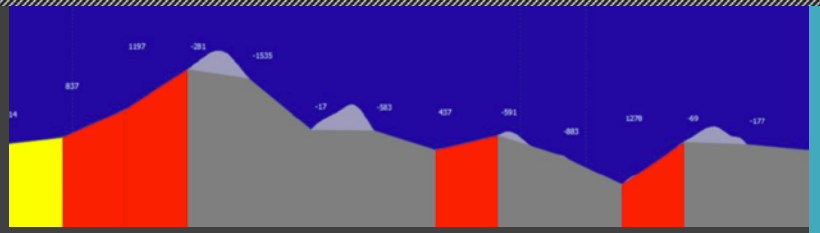
A bike can be the fastest in the wind tunnel, but if it's heavy, unresponsive, difficult to handle when cornering, unbalanced to the point of making it hard to maintain an optimal aero position, its aero factor becomes a disadvantage.

To validate our choices and the E-118 Pro real-world performances, we again installed the Notio device on the bikes to measure the CdA of the riders.

On the test loop, the riders were placed in typical race conditions with some climbs and descents.

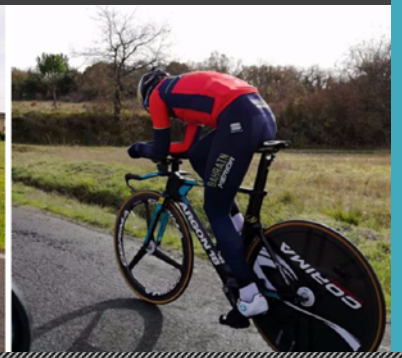
AGAIN, OUR TESTS SHOW IMPRESSIVE RESULTS. GORKA IZAGIRRE WAS 17 SECONDS FASTER ON A 8.55KM LOOP WITH THE SAME POWER OUTPUT.

The gain could be even more important with the addition of technical turns. Since a rider can brake later with a disc brake equipped bike, he will reduce his time spent at lower speeds.



TEST PROTOCOL: RIDING ON A 8.55KM HILLY LOOP. 2 RUNS WITH E-118 NEXT (FORMER BIKE - RIM BRAKES), 2 RUNS WITH E-118 PRO (NEW BIKE – DISC BRAKES).

RUN	DESCRIPTION	CDA	LAP TIME	LAP AVG. POWER
	GORKA IZAGIRRE			
1	*Argon 18 E-118 Next*	*Reference*	*13m21s*	*311w*
2	Argon 18 E-118 Next	-0.004	13m18s	312w
3	**Argon 18 E-118 PRO**	**-0.011**	**13m10s**	**311w**
4	**Argon 18 E-118 PRO**	**-0.014**	**13m01s**	**312w**
	PELLO BILBAO			
1	*Argon 18 E-118 Next*	*Reference*	*13m12s*	*276w*
2	Argon 18 E-118 Next	-0.001	13m03s	285w
3	**Argon 18 E-118 PRO**	**-0.007**	**13m00s**	**278w**
4	**Argon 18 E-118 PRO**	**-0.010**	**12m52s**	**282w**



"Riders tested it, team tested it, Argon 18 tested the bike as well and all agree that the bike is much faster than the current one, so we are really willing to have it here with us.

Even more important taking in account the importance of the material and equipment. Every watt is important nowadays. The riders gained stability, an this stability is making our riders faster (more aerodynamic)."

- Ivan Velasco
Aerodynamics/Biomechanics specialist, Astana Pro Team

One of the most interesting aspects of this road test for us was to get real feedback from the riders on different characteristics of the bike: handling, cornering, braking, acceleration, etc.

Gorka Izagirre's comments on the bike after his test rides:

- **The new E-118 PRO bike is more stable than the E-118 Next.**
- **The new E-118 PRO feels faster than E-118 Next.**
- **The new E-118 PRO corners better than the E118 Next.**
- **The new E-118 PRO feels lighter in accelerations and sprints than the E-118 Next.**
- **Overall the new E-118 PRO is better in every aspect than E-118 Next.**
- **The new E-118 PRO feels stiffer in the bottom bracket area.**

E-118 PRO

MUCH MORE THAN JUST ANOTHER AERO TT BIKE

The E-118 Pro, our no compromise time trial bike developed with and for Astana Pro Team, is part of our new E-118 platform.

Using the same breakthrough Pro level carbon lay-up, we will soon launch a more triathlon oriented bike. It will be as light as its time trial counterpart.

Rather uncommon in the triathlon world, it will demonstrate superior handling and exceptional responsiveness, trademark characteristics of Argon 18 bikes.

Just like the E-118 Pro, this new Triathlon bike will be faster on technical courses, it will also corner better and climb like no other bike in its category.


Atlanta 1996
GO FASTER !
ARGON 18