

VA VELOCITY ACE



GUIDE BOOK



VA VELOCITY ACE

BORN FOR SPEED

DARE's new generation aerobike Velocity Ace-AFO (VA-AFO) has sped onto the scene! In preparation to chase victory at this year's grand tour, we've worked every detail through highly sophisticated wind resistance technology and utilized cutting edge Torayca® carbon fiber T1100G and M46X authorized by renowned Japanese company Toray. If you're in the pursuit of excellence, we invite you to experience a brand new benchmark in speed on DARE's VA-AFO, sprint like never before!



VA VELOCITY ACE

OUTRIDE YOUR PAST

In the face of everchanging conditions on the road, VA-AFO demolishes disruptive airflow and resistance to grant you unhindered speed and performance. Your only task? To be faster than you were a second ago.





DARE x Uno-X Mobitily

Uno-X Mobility Team has been a crucial partner in the development of the VA-AFO. Since the end of the 2023 season, we've been collaborating closely, going through multiple prototypes, computer analyses, and track tests to ensure it meets top-tier performance standards, aiming to win in grand tour 2024!





SEASON 2024 SUMMER

TOUR DE FRANCE



STAGE 2-4



STAGE 1-11

ProTour Stage Win

- 🇫🇷 Critérium du Dauphiné (UCI 2.UWT)
- 🇧🇪 Brussels Cycling Classic (UCI 1.PRO)
- 🇳🇴 Tour of Norway (UCI 2.PRO)
- 🇳🇱 Euro Shop Elfstedenronde (UCI 1.1)
- 🇳🇱 Antwerp Port Epic (UCI 1.1)
- 🇳🇱 Heylen Vastgoed Heistse Pijl (UCI 1.1)
- 🇮🇹 Cro Race (UCI 2.1)
- 🇮🇹 Veneto Classic (UCI 1.Pro)



“With the same wattage, riding VA-AFO is 1.5 times faster.”

_ Alex Kristoff *Uno-X Mobility Team Lead Sprinter*



“I can say this for certain, VA-AFO has achieved peak quality, our team is very satisfied and grateful for DARE’s contributions these past few years.”_ Thor Hushovd *Uno-X Mobility general manager*



VELOCITY ACE

TECHNOLOGYS



STREAMLINED DESIGN, MAXIMUM PERFORMANCE

Our mission in designing the Velocity Ace was not to simply be better, but to be the best. In a world of speed, even one watt can be the difference between victory and defeat. That's why we turned to CFD experts in Switzerland to run simulations on each part of our frame, using software analytics to draw and reshape each tube into the optimal dimensions. After testing sample after sample to find the perfect airfoil tube shapes, we then tested in wind tunnels, using the resulting calculations to tweak the VA-AFO into its final form – a beast of pure speed.



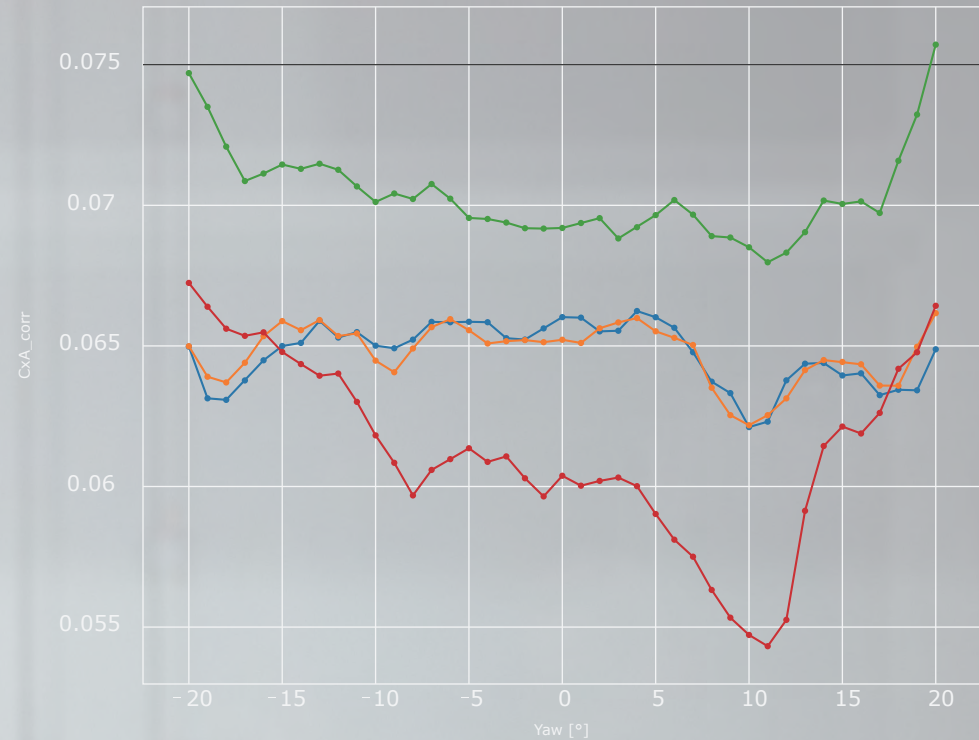
VA VELOCITY ACE

-5.2 W at 35 km/h

-11.4 W at 45 km/h

-21.2 W at 55 km/h

(compare with VSRu)

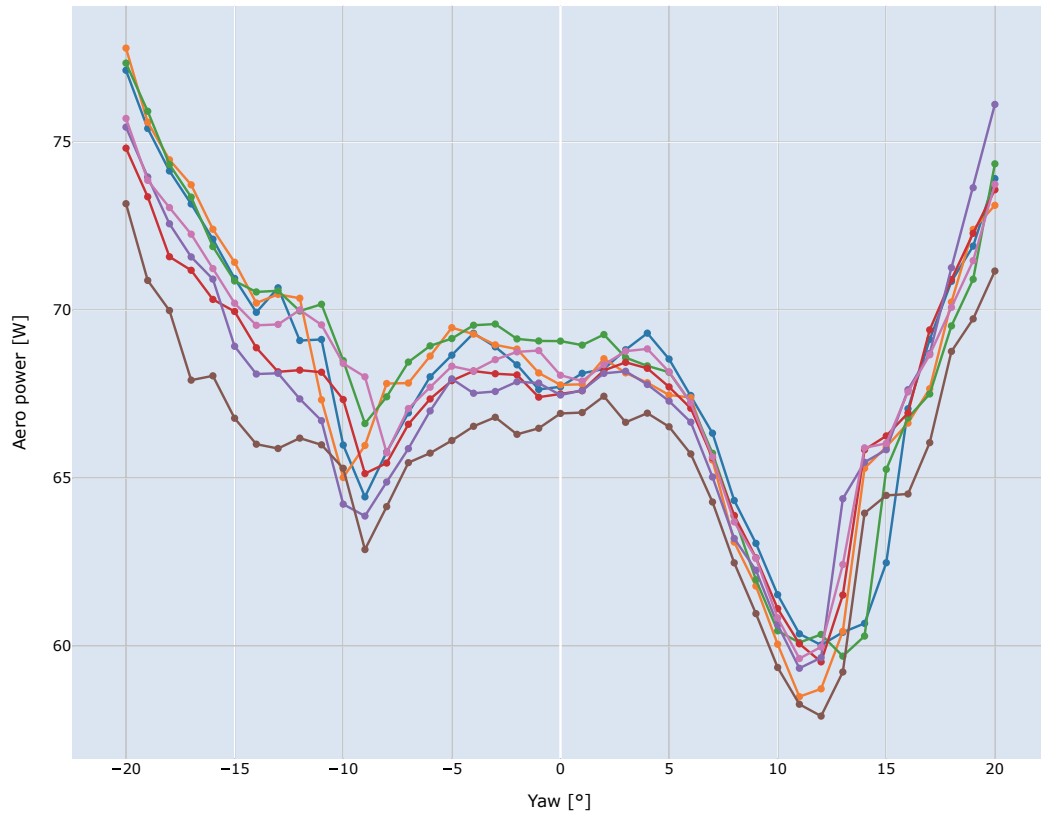


— VSRu — Brand C — Brand C — VA-AFO

Under the same wind conditions of 45 km/h, VA-AFO reduces drag by 11.4W compared to VSRu, and by 4.7W compared to other top-tier aerobikes from competing brands!

According to big data from the Swiss aerodynamic institute, VA-AFO's overall aerodynamic performance ranks among the best in the market!

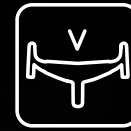
MULTIPLE WIND TUNNEL ADJUSTMENTS



- 526: Proto 45 km/h 2 Bottles
- 531: Proto Cockpit 1 45 km/h Plasticine
- 532: Repeat 526 Proto 45 km/h 2 Bottles
- 533: Proto Cockpit 2 no Spacer
- 534: Proto Cockpit 3 Plasticine Top Tube
- 535: Proto Cockpit 4 no Garmin and Mount
- 536: Cockpit 2 Repeat 533



VELOCITY ACE



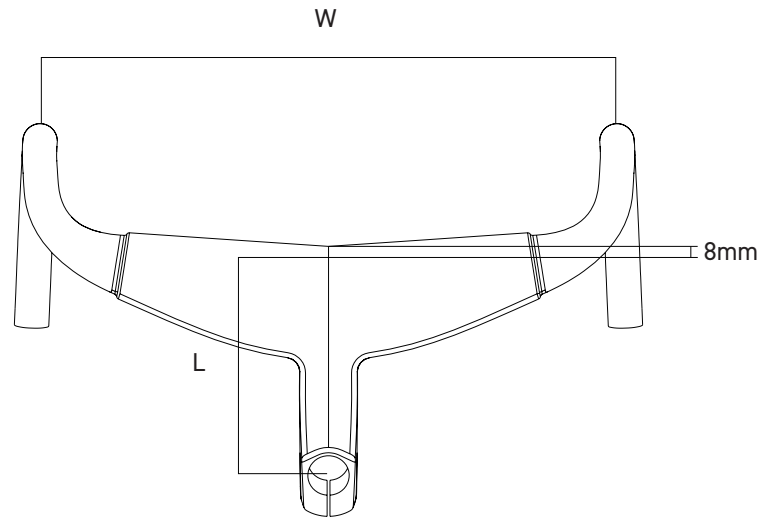
V:C1 Integrated aero handlebars

From CFD simulations and wind tunnel testing, it was clear that handlebars contribute most to air resistance while riding. Our all-new aero handlebars V:C1 represent an accumulation of precise calculations across each curve, utilizing a flattened top shape that enhances aerodynamic performance while providing more stiffness and comfort for cruising. The V:C1 flares outwards by 3-degrees to smoothen the position transition to sprinting.





17 standard sizes and 12 unique sizes for any of your geometry needs.



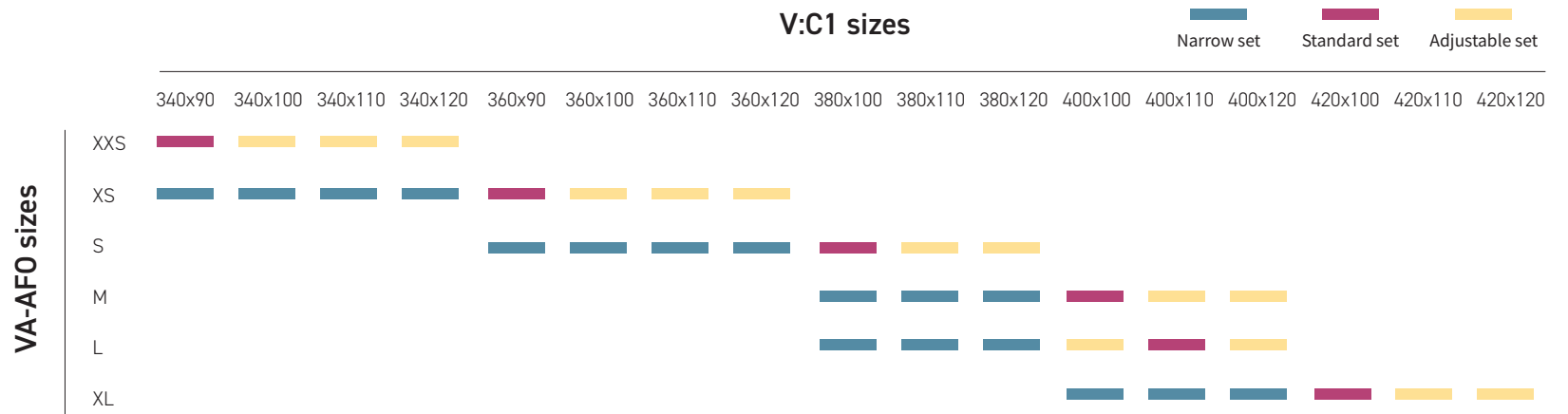
Regular Size

- 90 x 340 • 100 x 340 • 110 x 340 • 120 x 340
- 90 x 360 • 100 x 360 • 110 x 360 • 120 x 360
- 100 x 380 • 110 x 380 • 120 x 380
- 100 x 400 • 110 x 400 • 120 x 400
- 100 x 420 • 110 x 420 • 120 x 420

Special Size * ETD:12 weeks after ordering *

- 130 x 360 • 140 x 360 • 150 x 360
- 130 x 380 • 140 x 380 • 150 x 380
- 130 x 400 • 140 x 400 • 150 x 420
- 130 x 420 • 140 x 420 • 150 x 420

VA-AF0 and V:C1 Size suggestion





Velocity Aero Shape

Controlling airflow and reducing resistance across a frame is achieved with two methods, reducing material and increasing tube width. We analyzed an array of tube shapes in CFD simulations, creating a final form based on the objective data produced. The all-new VA-AFO is the best-performing design across all our meticulous calculations, decreasing air resistance while increasing overall stiffness with its widened head tube and down tube, with its seat stays and chain stays designed to funnel airflow.



Velocity Aero Fork

VA-AFO's widened fork seamlessly transitions into its head tube and shields the brake calipers, a streamlining that greatly reduces the bike's drag coefficient. The fork accommodates tires up to 32C, offering options both aerodynamic and comfortable while leaving room for output maximization.





V:P1 Aero Seatpost

The V:P1 aerodynamic seat post can be adjusted 30mm, so cyclists can easily achieve a posture suitable for the type of ride or riding habit



TORAYCA
T1100G

TORAYCA
M46X

Certified TORAYCA New-Gen Carbon Fiber

When we're pushing aerodynamics to the max, we don't need to sacrifice weight or stiffness because we use the highest quality carbon fiber, sourced from renowned Japanese company Toray. VA-AFO uses the cutting-edge Torayca® carbon fiber T1100G and M46X certified by Toray, combined with our AFO-exclusive DGTM carbon fiber. Not only is this composite stiffer than our previous generation aero road bike VSRu, it's also lighter by 100 grams!

SLT BY CERAMICSPEED

CeramicSpeed SLT headset bearings

To provide stable maneuverability throughout an extended ride, we've chosen to equip VA-AFO with CeramicSpeed's SLT headset bearings, which use solid, oil-encapsulated casings that are self-lubricated and fully sealed, so you won't need to worry about water or dirt affecting their condition.

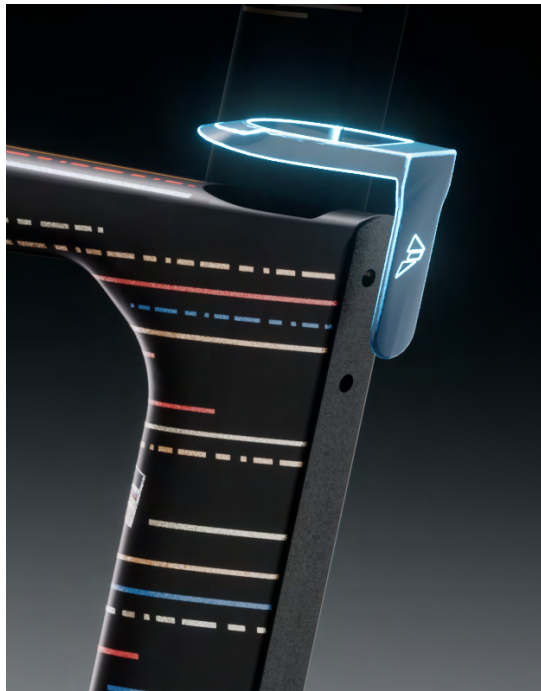


Attention to Detail

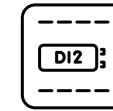
Look closely and you'll find numerous clever little details on the meticulously designed VA-AFO, from a detachable front derailleur mount (for a sleeker look when using a 1x drivetrain), to a headset integrated into the top tube, to sealed front and rear dropouts, to a Di2 battery mount hidden in the down tube and a waterproofing ring for the seat post.



**Water-resistant
Hidden Seat clamp**



**Intergrade Mount
Ready**



Di2 Intergrade



VA VELOCITY ACE

DARE

COLORS

VELOCITY ACE

Swift Black

Standard color

An understated matte black, patterned with streaks of silver and ever-changing purple and beige, urging ambitions of speed and power its rider.



VELOCITY ACE

Silver Lightning

Limited Edition Color

In the realm of speed all movement is reduced to lines of color, a current effortlessly flowing forward and pulling you along at exhilarating velocity. Silver Swift features glimmery lines of thin silver crisscrossed with lines of red, yellow and blue traveling across its glossy silver and matte black frame, a refined display of craftsmanship.

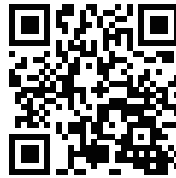




for every Silver Lightning frameset purchased, one'll receive a DARE x Assos exclusive jersey(valued at USD 235)



VELOCITY ACE



START PAINTING

OR. IRIDESCENT



Uni: Solid



01
NIAGARA



02
NAVY



04
FLAME



08
SULPHUR



09
LEAF



0S
SILVER



0T
CHAMPAGNE



0U
LEAD GREEN



0V
CERULEAN



0W
LILAC



0X
CEDAR RED



0D
LEAD



0E
SNOW



0F
STONE

Uni: Dynamic



0G
SYMPHONY



0H
SHALE



0Q
ISLAND



0R
IRIDESCENT

Theme: Four Seasons



0I
GREEN-GOLD



0J
BLUE-PINK



0K
CORAL-BLACK



0L
GRAY-WHITE

Due: In n'Out



0E
SNOW



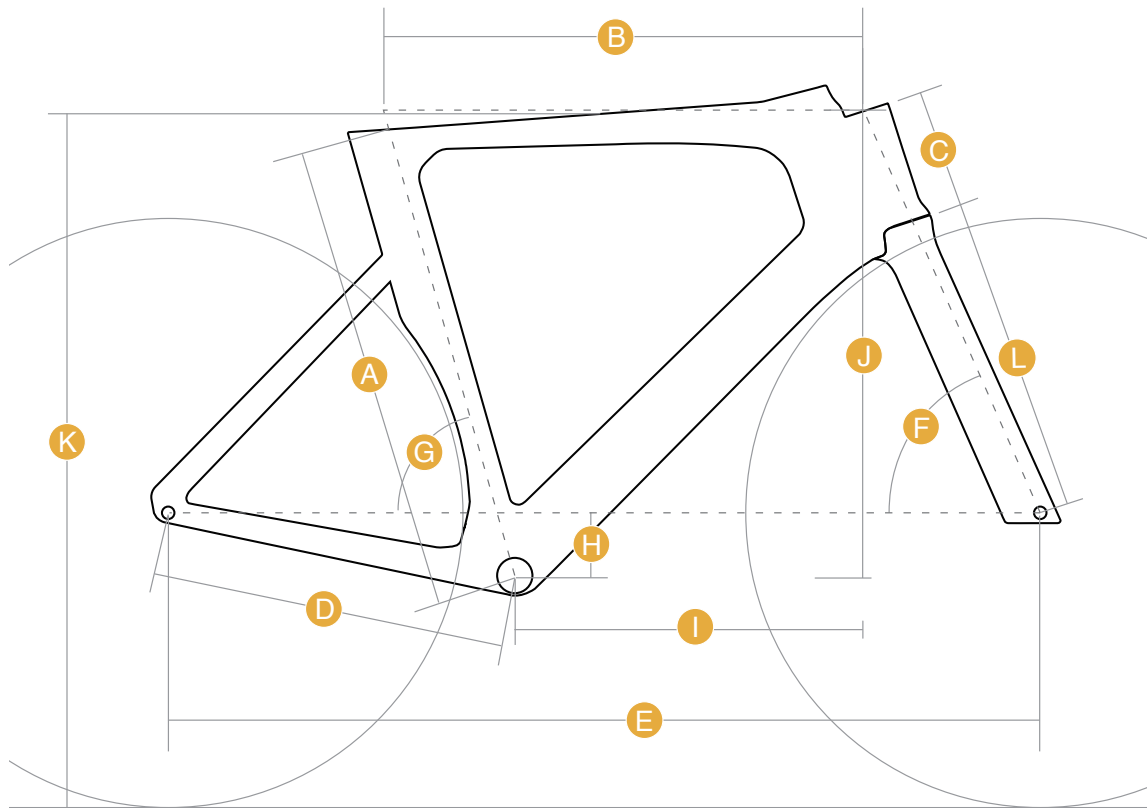
0F
STONE



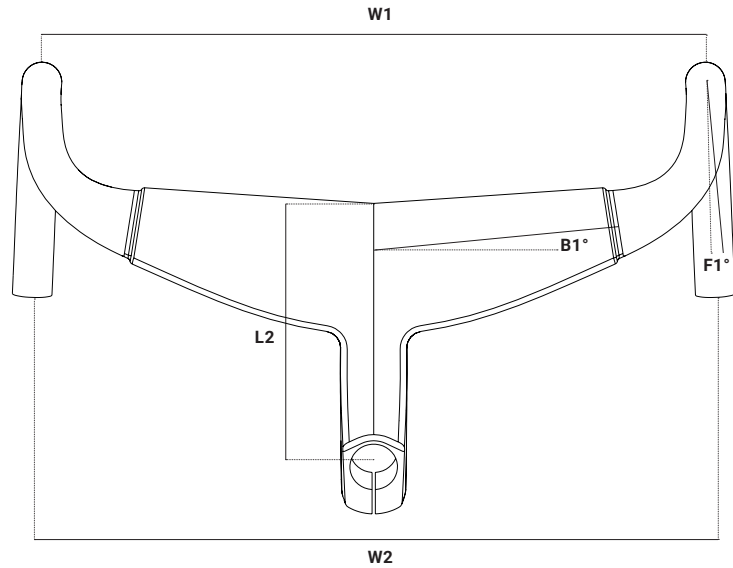
0M
EMERALD



0O
BORNITE

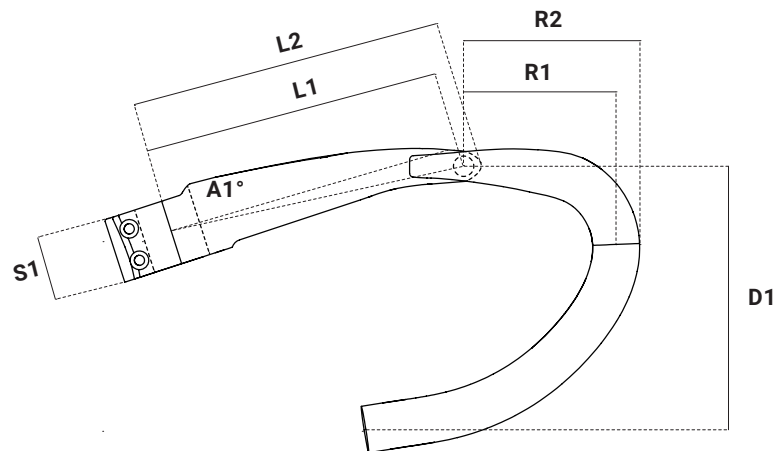


Frame size	2XS	XS	S	M	L	XL
Height(cm)	158	164	170	175	182	186
	168	174	180	185	192	200
A ST Length	480	500	520	540	560	580
B Effective TT	507	519	544	562	580	598
C HT length	77	96	117	138	161	181
D RC length	410	410	410	410	410	410
E Wheelbase	967	982	997	1015	1030	1048
F HT angle	71	71.5	72	72	72.5	72.5
G ST angle	74	74	74	74	74	74
H BB drop	75	75	73	73	70	70
I Reach	372	383	395	407	419	431
J Stack	480	500	520	541	561	580
K Standover	730	749	770	790	812	831
L Fork Length	369	369	369	369	369	369



尺寸 (mm)	34	36	38	40	42
W1 Hood-to-hood	340	360	380	400	420
W2 Drop-to-drop	352	372	392	412	432
R1 Reach	80	80	80	80	80
R2 Reach	92	92	92	92	92
D1 Drop	133.8	133.8	133.8	133.8	133.8
F1 Drop flare	3	3	3	3	3
B1 Backsweep	-5	-5	-5	-5	-5
A1 Angle	-6	-6	-6	-6	-6
S1 Stack	33	33	33	33	33
L1 Stem length*	90 · 100 · 110 · 120	90 · 100 · 110 · 120	100 · 110 · 120	100 · 110 · 120	100 · 110 · 120
L2 Stem length	98 · 108 · 118 · 128	98 · 108 · 118 · 128	108 · 118 · 128	108 · 118 · 128	108 · 118 · 128

*L1 龍頭長度 = 龍頭束管中心到手把前緣弧度中心, 即L2減8mm



Note:

1. This handlebar can only be assembled with electronic shifting gears.
2. If you have specific fitting requirements, please pay special attention to the measurements of L1.



VELOCITY ACE

**AVAILABLE
NOW!**



dare-bikes.com/retailer

PLEASE CONTACT YOUR LOCAL DARE DEALERS FOR PURCHASES



www.dare-bikes.com