FACTOR

Never.™
Status.
Quo.

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3..2..1..|..1..2..3

THE ONE IS MORE THAN A BIKE. IT IS THE SUM OF EVERY LESSON WE'VE LEARNED, EVERY LIMIT WE'VE PUSHED, AND EVERY RISK WE'VE TAKEN TO MAKE SPEED TANGIBLE. YOU DON'T JUST RIDE THE ONE. YOU COMMIT TO IT. AND IN RETURN, IT COMMITS TO YOU, TO TAKE YOU FASTER THAN YOU THOUGHT POSSIBLE.

ONE

MISSION ORIGIN & DEVELOPMENT STORY

ONE

FACTOR

EVERY MISSION STARTS WITH A TRIGGER. FOR THE ONE, IT WAS A SHIFT IN THE RULES OF THE GAME.

WHEN THE UCI BEGAN RELAXING LONG-STANDING DIMENSIONAL CONSTRAINTS, ESPECIALLY AROUND THE FORK BOX, MOST BRANDS SAW AN INCREMENTAL DESIGN OPPORTUNITY. AT FACTOR, WE SAW AN OPEN CORRIDOR TO THE EDGE OF LEGALITY.

Never.™
Status.
Quo.

OUR R&D TEAM HAD BEEN HERE BEFORE. THE OLYMPIC-RECORD-BREAKING HANZŌ TRACK RESEARCH AND DEVELOPMENT HAD SHOWN US HOW AIRFLOW “SPILLS” OFF THE FRONT TYRE AND DISRUPTS EVERY-THING BEHIND IT. THE HANZŌ ROAD INTERNAL TEST PROJECT TAUGHT US THAT, FREED FROM TRADITIONAL FORK CONSTRAINTS, WE COULD SIGNIFICANTLY IMPROVE PERFORMANCE. THE OSTRO VAM PROVED THAT AERODYNAMIC SPEED COULD BE PAIRED WITH LOW WEIGHT AND REAL-WORLD HANDLING. THOSE PROJECTS WERE MORE THAN PRODUCTS, THEY WERE RECONNAISSANCE MISSIONS. EACH REVEALED WEAKNESSES IN THE STATUS QUO AND GAVE US THE TOOLS TO ATTACK THEM. BY THE TIME THE UCI CHANGED THE RULES, WE HAD THE EXPERIENCE,

THE FACTORY CAPABILITY, AND THE APPETITE TO GO FURTHER THAN ANYONE ELSE. FROM THE OUTSET, GRAHAM SHRIVE, OUR HEAD OF ENGINEERING, KNEW THIS PROJECT WOULDN’T JUST BE ABOUT MATCHING THE OSTRO’S SPEED, IT HAD TO LEAPFROG IT. THAT MEANT NOT JUST REFINING EXISTING SHAPES, BUT BREAKING THEM APART AND REBUILDING THEM. EARLY IN THE PROCESS, WE ESTABLISHED OUR OWN BENCHMARK. THE HANZŌ ROAD INTERNAL TEST PROJECT ALREADY SHOWED A ~10% AERO GAIN OVER THE OSTRO 2.0. THE GOAL: BEAT IT DECISIVELY IN A UCI-LEGAL CONFIGURATION.

WE BUILT AND TESTED CONCEPTS SO WILD THEY LOOKED LIKE THEY BELONGED ON A TRACK BIKE OR IN A WIND TUNNEL, AND FOR A TIME, THEY DID. HUNDREDS OF CFD RUNS, BOTH WITH FULL RIDER MODELS AND HALF-FRAME ACCELERATED ITERATIONS, LET US TEST VARIATIONS THAT WOULD BE IMPOSSIBLE TO EXPLORE PHYSICALLY IN THE SAME TIMEFRAME. FORK LEG SPACING, CROWN SHAPING, FAIRING PROJECTIONS, BRAKE MOUNT ANGLES, BAR TOP PROFILES, BOTTLE POSITIONS, ALL TUNED, TESTED, AND VALIDATED IN SILICO BEFORE THE BEST IDEAS MADE IT TO THE TUNNEL

~15%

FASTER THAN CERVÉLO S5 [2024]

WIND TUNNEL SESSIONS CONFIRMED WE WERE ON THE RIGHT PATH:

>8%

FASTER THAN OSTRO 2.0

>22%

FASTER THAN SPECIALIZED SL8

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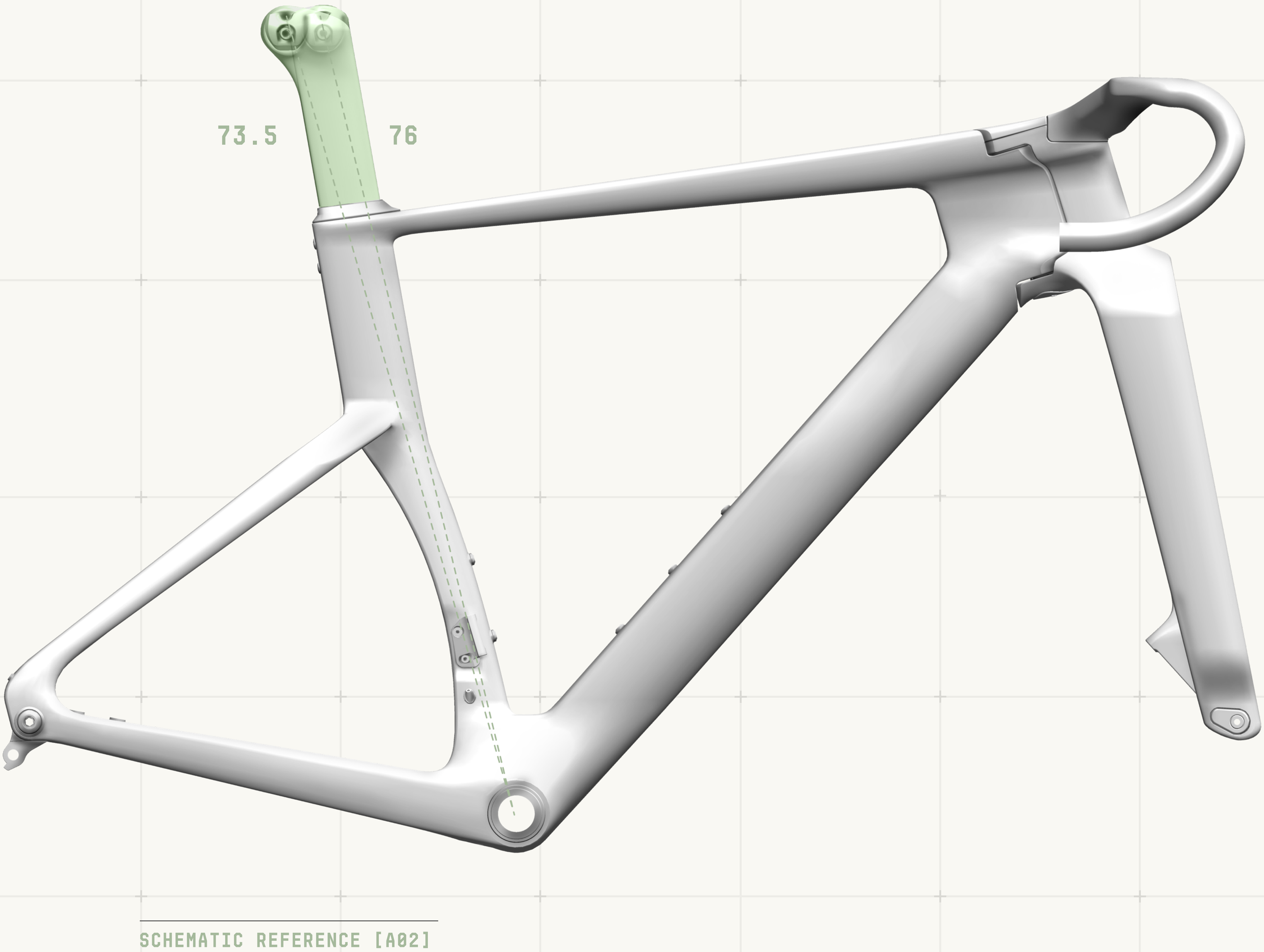
TECHNICAL ONE

FACTOR

CLEARANCE LEVEL:
PUBLIC RELEASE - TECHNICAL REFERENCE

Never.™
Status.
Quo.



SCHEMATIC REFERENCE [A02]

PREPARED BY:
FACTOR ENGINEERING DIVISION -
DESIGN AND FIT UNIT.

PURPOSE:
PROVIDE COMPLETE SPECIFICATION
DATA FOR THE FACTOR ONE PLATFORM.

FIG. A02 : ADJUSTABLE SEATPOST HEAD - STA RANGE

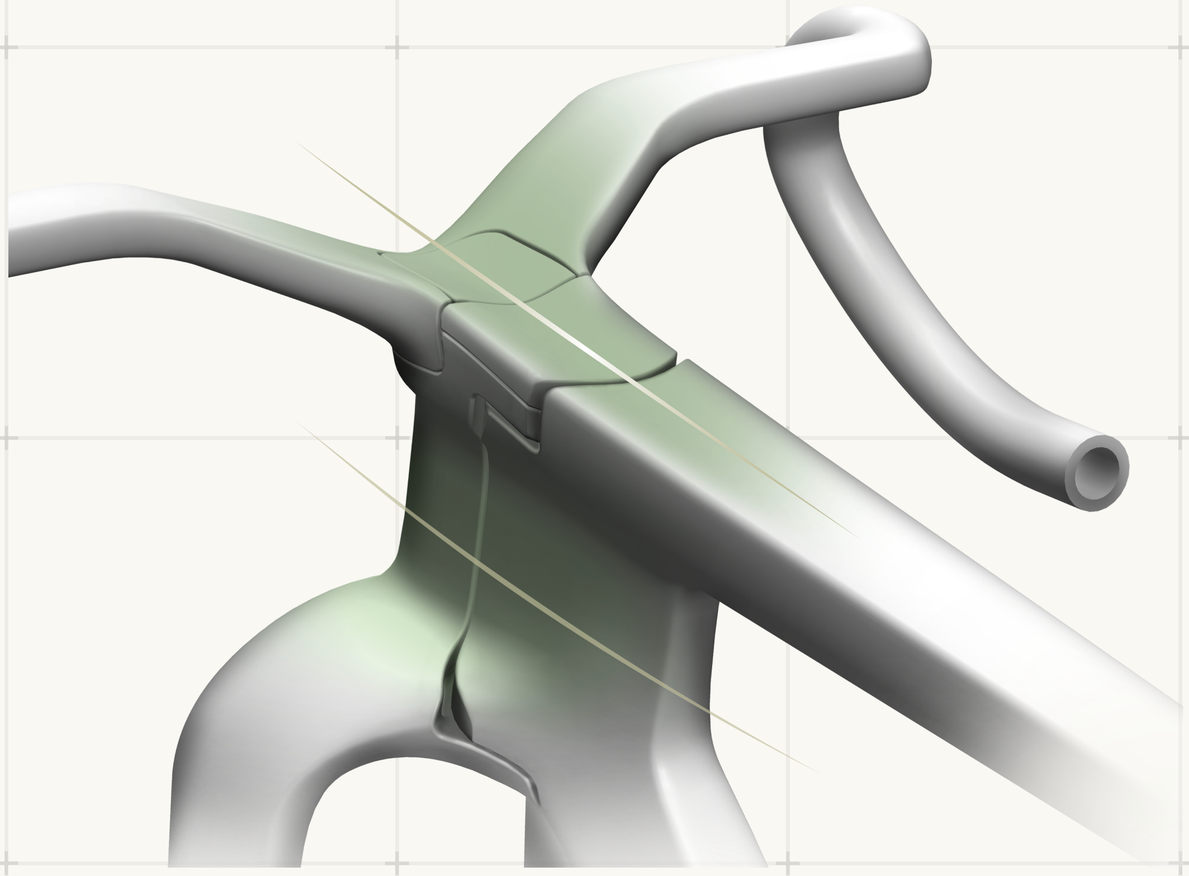
ENGINEERING INNOVATIONS - MISSION SYSTEMS

ONE FACTOR

Never.™
Status.
Quo.

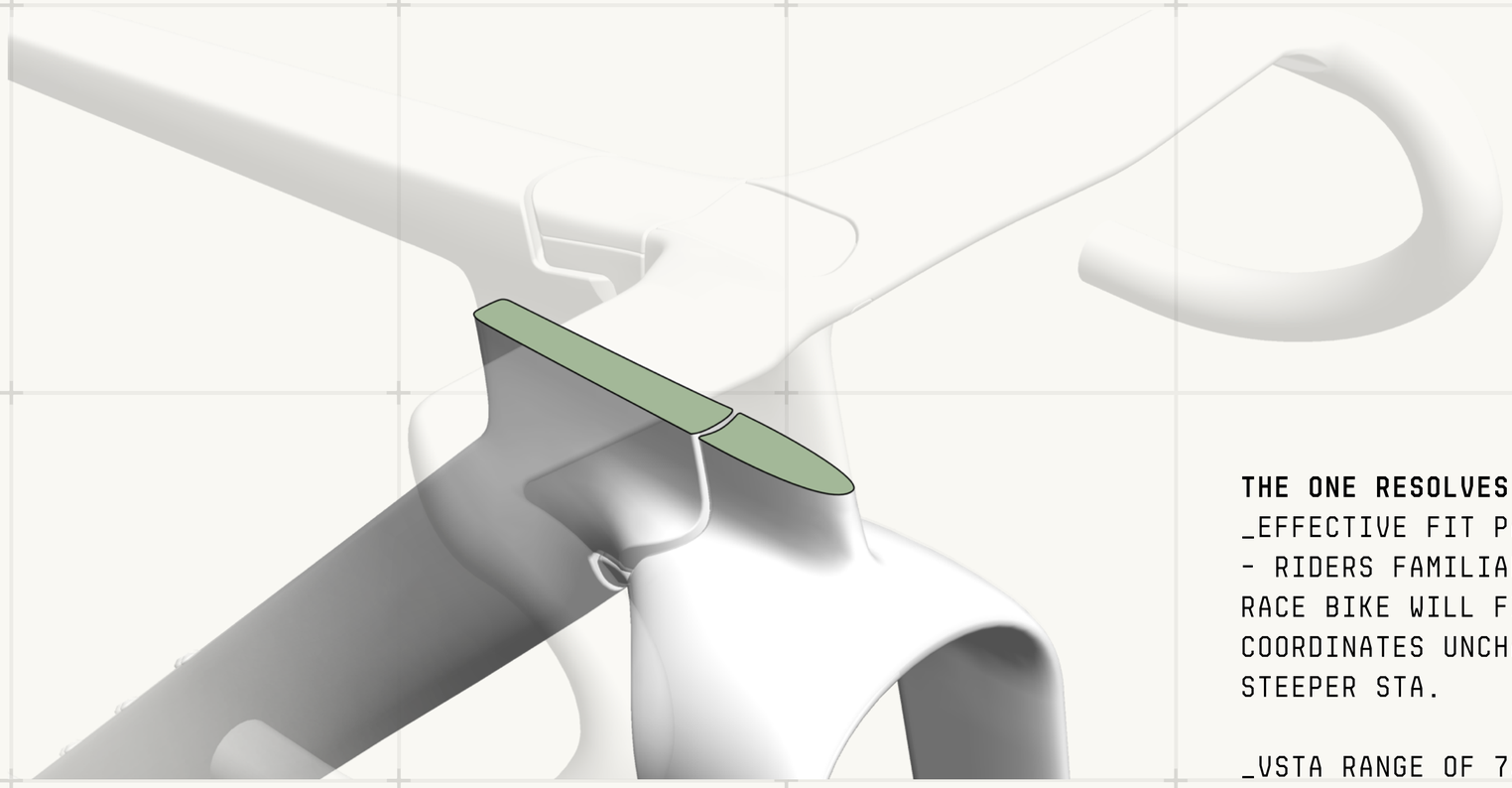
AERODYNAMIC SYSTEMS

PRIMARY OBJECTIVE: CONTROL AIRFLOW AT THE FRONT END AND SUSTAIN AERODYNAMIC ADVANTAGE DEEP INTO CROSSWIND YAW. THE UCI'S RULE CHANGES ALLOWED US TO ESCAPE THE DIMENSIONAL PRISON OF THE TRADITIONAL FORK BOX. WE USED THAT FREEDOM TO DESIGN THE BAYONET FORK + "CHIN" FAIRING SYSTEM, A FORWARD-PROJECTED STRUCTURE THAT MANAGES THE "SPILLOVER" DRAG CREATED WHEN AIRFLOW DETACHES FROM THE FRONT TYRE AND CROWN AREA.



AT THE LEADING EDGE OF THE ONE IS THE INTEGRATED HANDLEBAR,

THE DESIGN ALLOWS FOR A SEAMLESS TRANSITION OF AIRFLOW BOTH AT THE HEADTUBE AND OVER THE TOP OF THE BAR INTO THE TOP TUBE.



CROSS SECTION TUNED FOR VERY HIGH AIRSPEED AND MORE DIRECTIONAL.

GEOMETRY & HUMAN INTEGRATION

PRIMARY OBJECTIVE: ENABLE THE MODERN RACER'S POSITION WITHOUT DESTABILIZING HANDLING OR RIDER CONFIDENCE.

PROFESSIONAL FIT TRENDS ARE CLEAR:
_SADDLES MOVING FORWARD
_SHORTER CRANKS BECOMING STANDARD
_NARROWER BARS (AS EXTREME AS 35CM, NEW RULES TO LIMIT TO 38CM MINIMUM)
_EXTENDED REACH THROUGH LONGER COCKPITS

THESE CHANGES PUSH THE RIDER'S WEIGHT FURTHER FORWARD, RAISING THE CENTRE OF GRAVITY AND UNBALANCING THE FRONT/REAR LOAD SPLIT, A RECIPE FOR REDUCED STABILITY AND INCREASED CRASH RISK.

THE ONE RESOLVES THIS WITH:
_EFFECTIVE FIT PARITY WITH THE OSTRO VAM - RIDERS FAMILIAR WITH OUR FLAGSHIP AERO RACE BIKE WILL FIND THEIR CORE COORDINATES UNCHANGED, DESPITE THE ONE'S STEEPER STA.

_VSTA RANGE OF 73.5°-77° VIA ADJUSTABLE SEATPOST HEAD - CATERING TO INDIVIDUAL FIT NEEDS WHILE KEEPING HANDLING CONSISTENT.

ENGINEERING INNOVATIONS - MISSION SYSTEMS

ONE

FACTOR

CLEARANCE LEVEL:
PUBLIC RELEASE - TECHNICAL REFERENCE

SCHEMATIC REFERENCE [A02]

PREPARED BY:
FACTOR ENGINEERING DIVISION - DESIGN AND FIT UNIT.

PURPOSE:
PROVIDE COMPLETE SPECIFICATION DATA FOR THE FACTOR ONE PLATFORM.

_DECOUPLED HANDLEBAR MOUNT FROM STEERING AXIS - ENABLING EXTREME REACH WITHOUT RESORTING TO OVERLONG STEMS (>140MM) THAT SLOW STEERING RESPONSE OR COMPROMISE HANDLING PRECISION.

_COCKPIT SIZING REDEFINED - THE ONE USES AN INTEGRATED BAR SYSTEM WITHOUT A TRADITIONAL STEM. SIZES ARE DESIGNATED 1, 2, 3, 4, 5, CORRESPONDING TO FAMILIAR STEM EQUIVALENTS:

- SIZE 1 = 110MM
- SIZE 2 = 120MM
- SIZE 3 = 130MM
- SIZE 4 = 140MM
- SIZE 5 = 150MM

_INCREASED BB DROP BY 5MM - COMPENSATING FOR RAISED RIDER COG FROM CRANK/TIRE CHANGES, MAKING THE BIKE FEEL PLANTED IN HIGH-SPEED DESCENTS. TYPICAL RIDERS WILL RAISE THE SADDLE BY ~DOUBLE THE DECREASE IN CRANK LENGTH. DROPPING THE BOTTOM BRACKET EMBRACES THIS BY KEEPING THE RIDERS C OF G IN THE SAME POSITION WHEN THESE CHANGES ARE MADE.

Never.™
Status.
Quo.

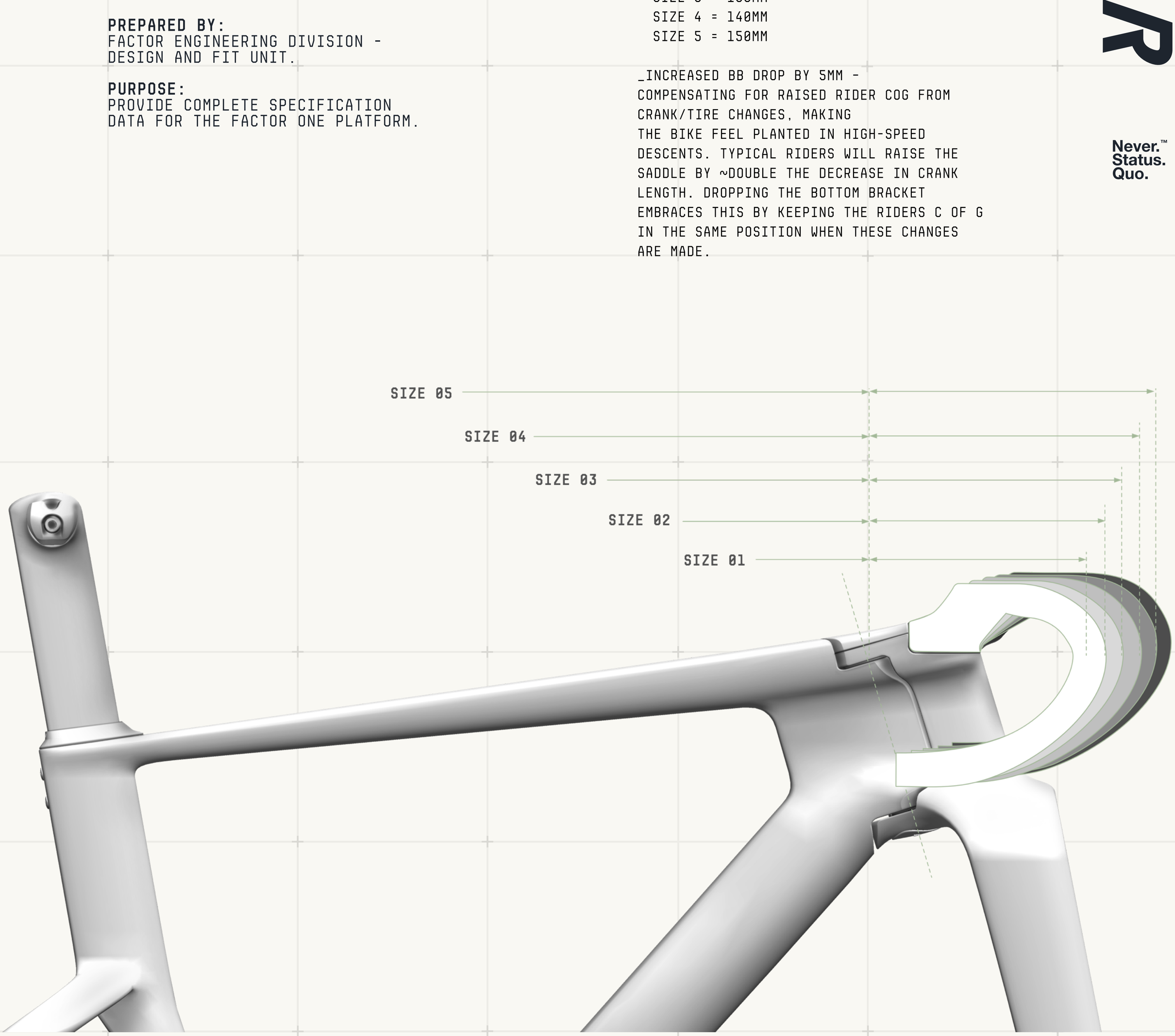


FIG. A06 : COCKPIT SYSTEM SIZING

ENGINEERING INNOVATIONS - MISSION SYSTEMS

ONE FACTOR

Never.™
Status.
Quo.

MANUFACTURING SYSTEMS

PRIMARY OBJECTIVE: BUILD A STRUCTURE NO CONTRACT MANUFACTURER COULD, IN-HOUSE, WITH TOTAL CONTROL FROM CONCEPT TO FINISH.

THE ONE'S DESIGN IS TOO RADICAL FOR OUTSOURCED PRODUCTION. FACTOR'S IN-HOUSE MANUFACTURING ALLOWED US TO:

_RAPIDLY PROTOTYPE AND REFINE WITHOUT WAITING FOR THIRD-PARTY TOOLING CYCLES.

_INTEGRATE THE BAYONET FORK, CHIN FAIRING, AND COCKPIT AS A UNIFIED STRUCTURAL/AERO SYSTEM.

_TUNE CARBON LAYUPS FOR STIFFNESS AND RIDE FEEL UNDER EXTREME LOADS.

_ENGINEER INTELLIGENT, USER FRIENDLY SOLUTIONS TO THINGS LIKE BAR ROTATION LIMITERS, DI2 BATTERY INTEGRATION, AND A LOW PROFILE UDH COMPATIBLE INTERFACE.

_DEVELOP A PRECISION COMPRESSION SYSTEM THAT MAINTAINS HEADSET INTEGRITY UNDER PRO-LEVEL SPRINT FORCES, WHILE BEING SIMPLE TO ADJUST AND ROUTE CABLES THROUGH.

BY CONTROLLING EVERY PROCESS, FROM CARBON CUTTING TO CURING TO FINISHING, WE COULD MOVE FROM CFD TO TUNNEL TO RACE WITHOUT COMPROMISE OR DELAY.

NORMALIZED

SYSTEM OUTCOME:
>8% FASTER THAN OSTRO 2.0
~15% FASTER THAN CERVÉLO S5 (2024)
>22% FASTER THAN SPECIALIZED SL8

THESE GAINS ARE NOT THE RESULT OF A SINGLE TRICK, BUT OF CUMULATIVE MARGINAL ADVANTAGES ACROSS AERODYNAMICS, FIT INTEGRATION, AND MANUFACTURING EXECUTION, EACH ONE MEASURED, VALIDATED, AND LOCKED INTO THE FINAL FORM.