

RACE
FACE

Era Chainring

**EVER-
LASTING.
LIGHT.**

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SAVE WEIGHT OR GAIN LIFESPAN. CHOOSE WISELY.

Chainrings are an integral part of the drivetrain, but they are also susceptible to wear and need to be replaced periodically. A worn-out ring means less effective chain retention and premature chain wear, leading to poor shifting and more dropped chains on the trail.

When purchasing a chainring, the options for riders are a lightweight alloy chainring that wears out quickly, or a hard-wearing steel chainring that more than doubles the weight.

Race Face wanted a third option for riders; a chainring with the best of both worlds. Something as light as aluminum, but as long-lasting as steel. The Era chainring achieves this.

WEIGHT OF ALUMINUM. 5X THE LIFESPAN.

Making a chainring that ticked the boxes of weight efficiency and longevity meant deviating from typical chainring construction. For Era, we split a chainring into three parts, and selected the ideal material for each.

Alloy Crank Interface
Proven durability of material.
CINCH compatibility.

Carbon Spider
Strength without weight.

Stainless Steel Teeth
For the longest wear life.

HIGHEST YIELD STRENGTH MEANS LONGEST LIFE

Stainless Steel Teeth

We knew we wanted to use steel for the chainring's teeth, but it's important to understand why, and why we chose not to use titanium.

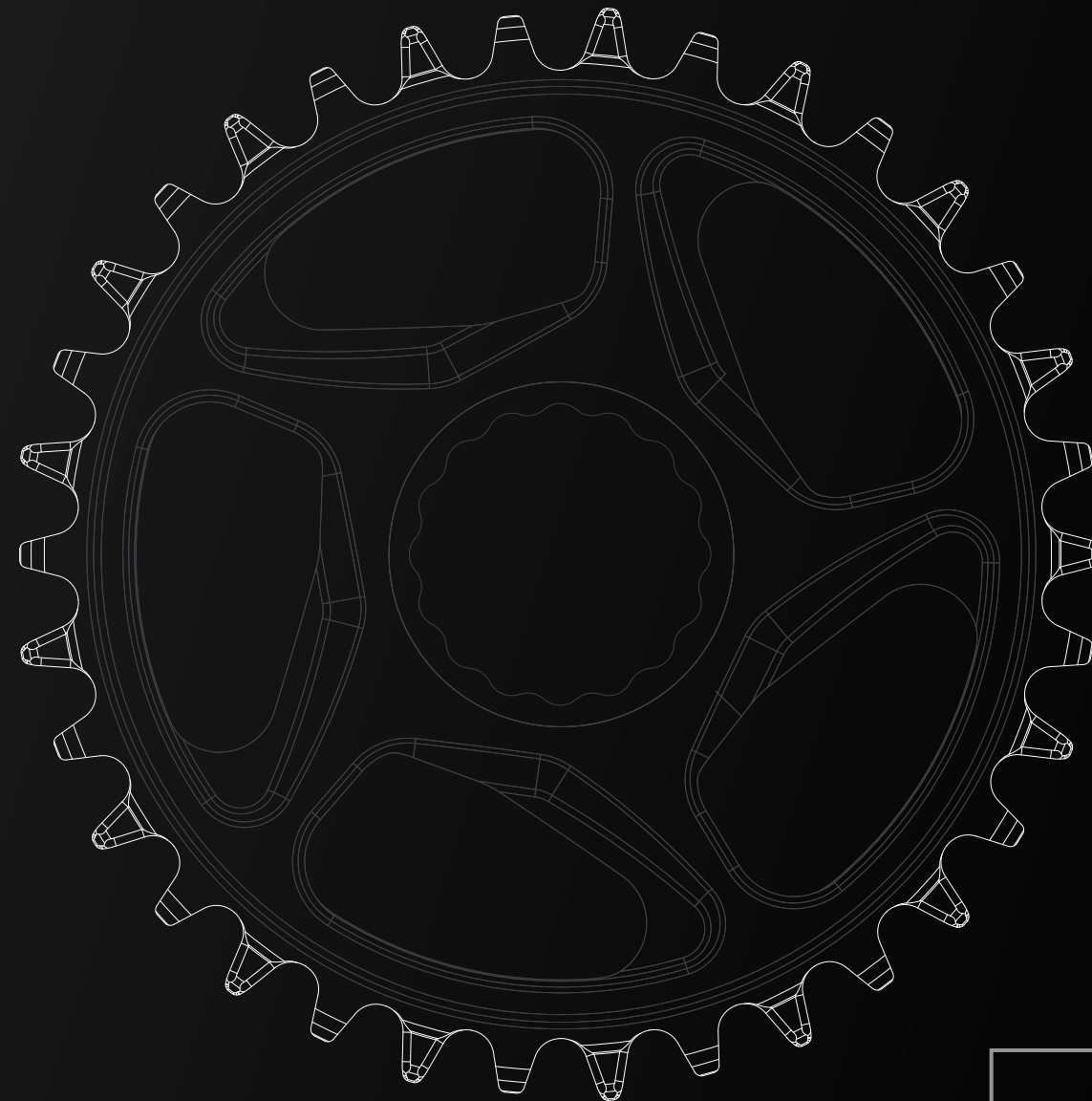
When two identically shaped chainrings have the same forces applied to them, the ring with the higher yield strength (measured in MegaPascals or MPa) will have a longer wear life.

Yield strength of Race Face 7000-series aluminum chainrings is **475 MPa**

Yield strength of Grade 5 Titanium (used in most chainrings) is **900 MPa**

Yield strength of our selected stainless steel is **1300 MPa**

Steel teeth win hands down when it comes to wear life and durability.



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SINCE '93

SPIDER, CHAINRING, ERA

PLOT SCALE 1:1

CA 611-40-005

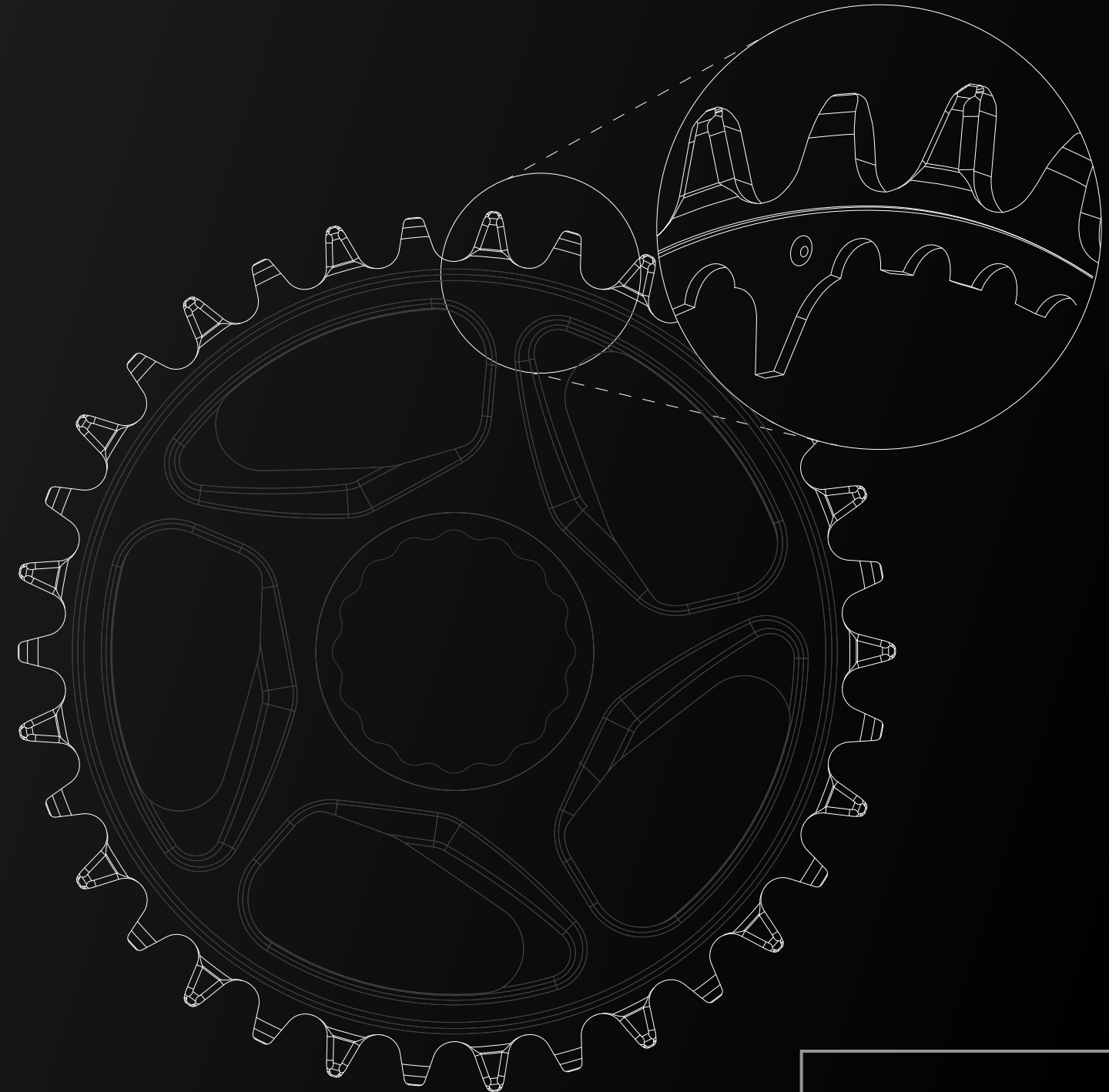
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MV24 ●●●●

BONDING THE INNER EDGE

Stainless Steel Teeth

The Race Face design engineer on the Era chainring project comes from a background of backcountry ski design and he approached the inner bonding edge of the tooth section much like the bonding interface of a ski edge. The design needed to remain reasonably thin while maintaining structural integrity, but also needed to be short to save weight, with ample surface area for co-molding.

The inner bonding edge was one of the most challenging elements of the Era chainring, but by thinking outside the box, we nailed it.



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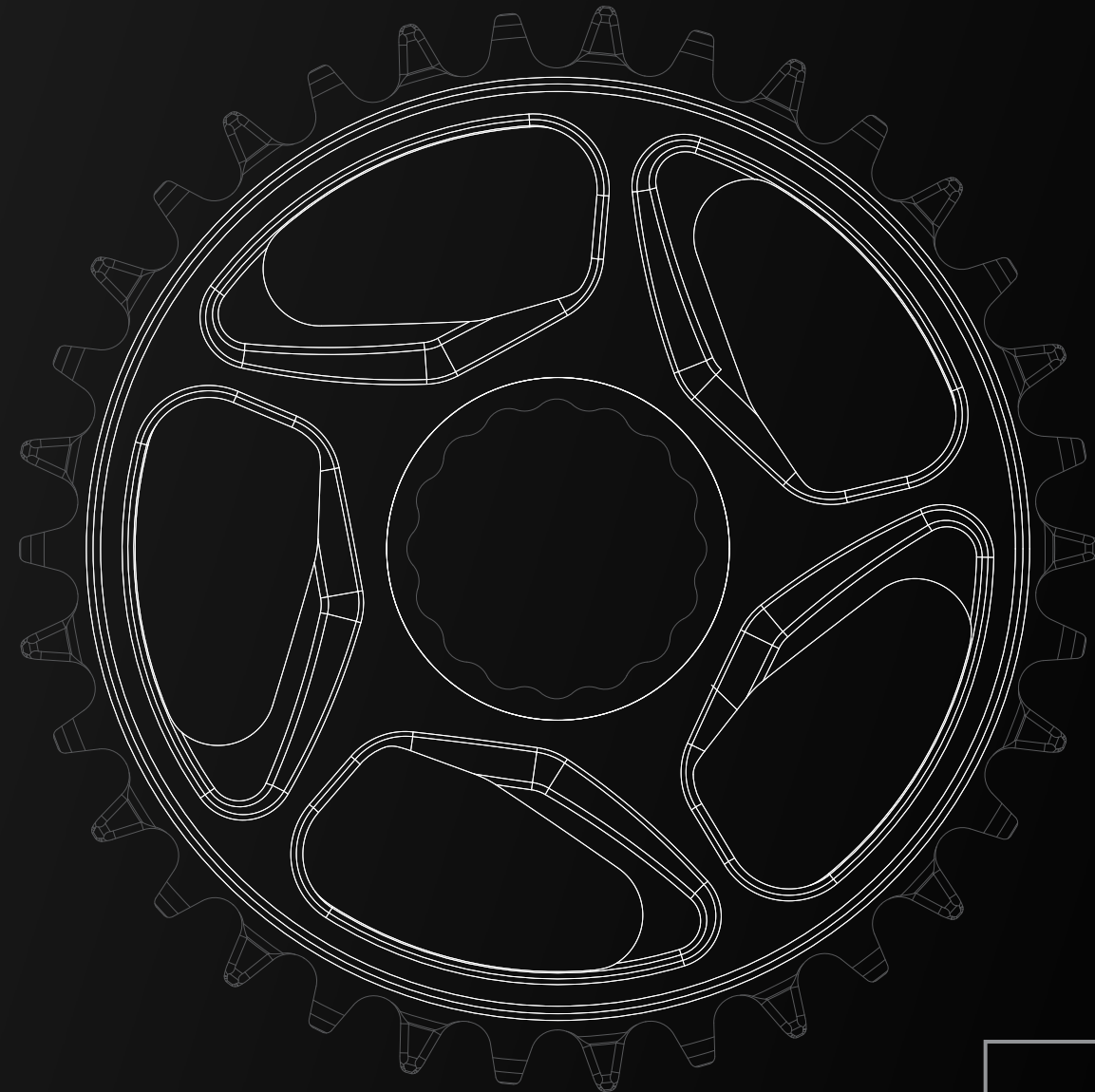
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STRENGTH WITHOUT WEIGHT

Carbon Spider

The carbon spider is the body of the chainring that holds everything together. We considered using titanium here as well, but that would add too much weight. With deep experience in manufacturing carbon components, we challenged typical chainring designs and decided on a carbon spider.

The carbon fiber spider is bound to the alloy CINCH crank interface and stainless-steel teeth using our proprietary compression and co-molding processes, which we developed for the Race Face Era crankset. Long term testing and reviews of Era crankset have assured us that these processes make an incredibly durable carbon product.



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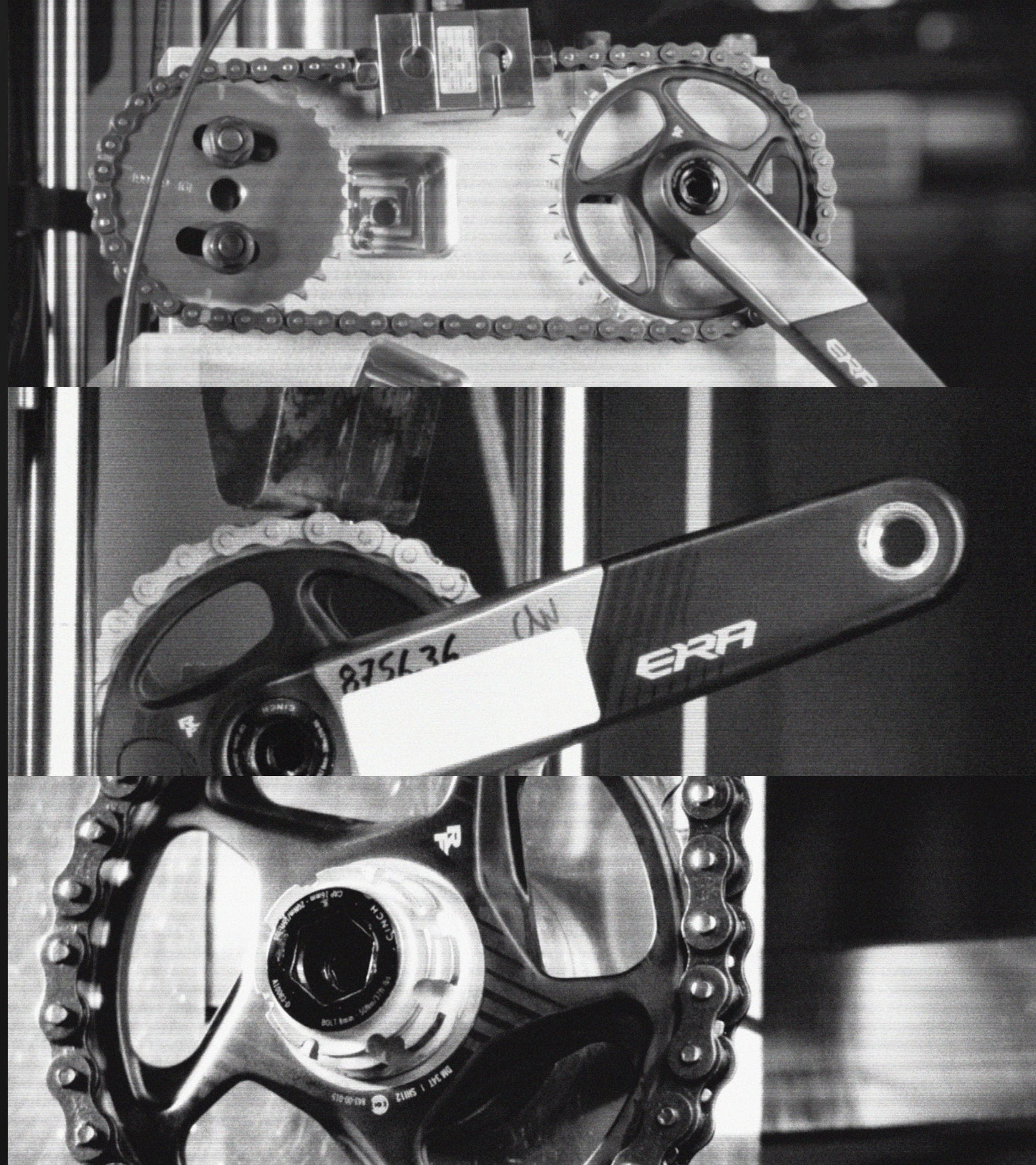
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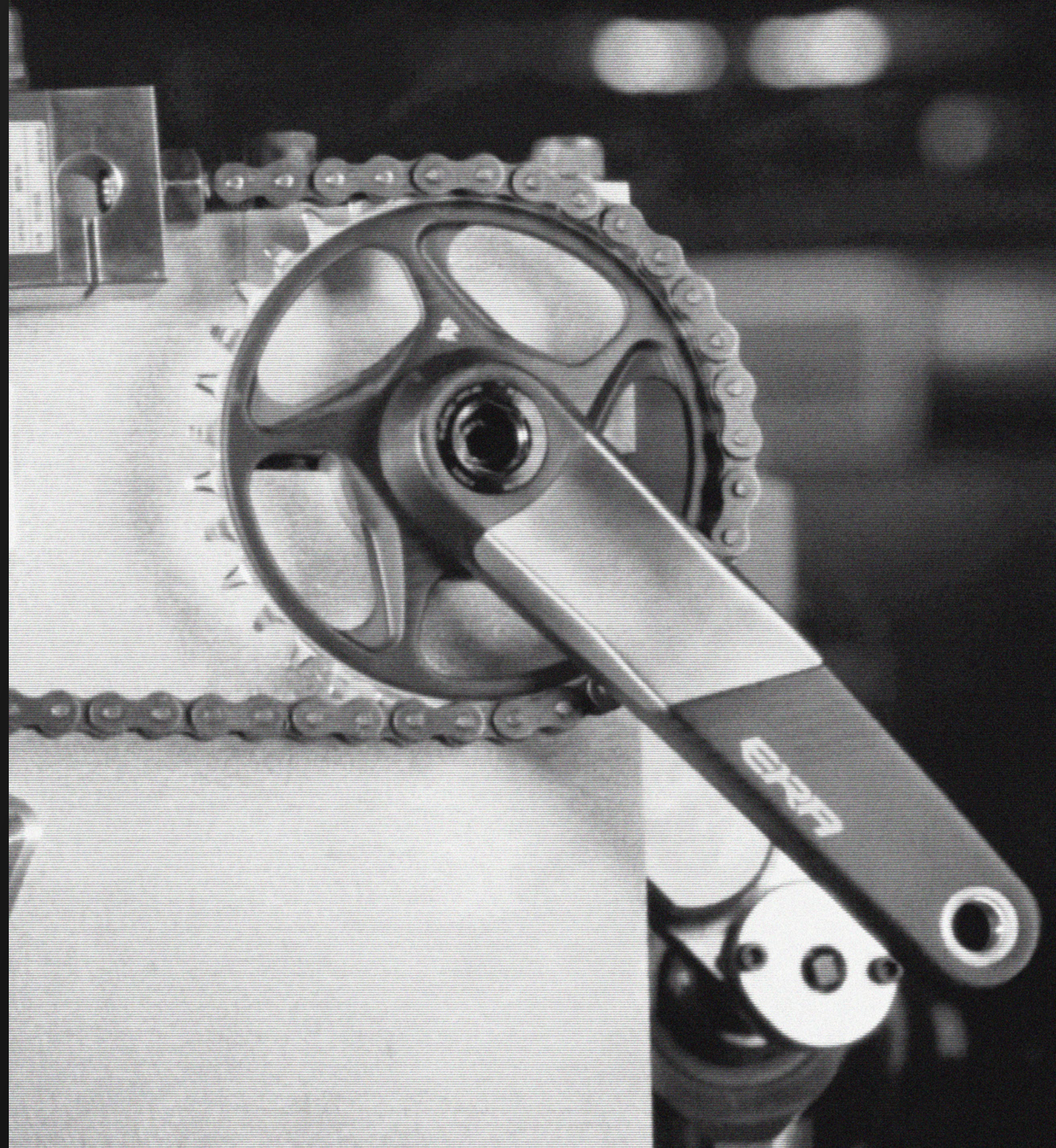
TIME TO TEST

We put the Era chainring through the typical gauntlet of Race Face lab testing, focusing on three key tests: **fatigue resistance, impact resistance and ultimate strength.**



Fatigue resistance measures how many times the teeth in a chainring can be loaded and unloaded before any part of the chainring fails. This test strained the joints between the carbon spider, the steel teeth and the CINCH interface.

Standard 12-speed rings from the two big drivetrain competitors both failed in 400,000 cycles or less. We stopped testing our Era ring after 2.1 million cycles, and it was still fully functional.



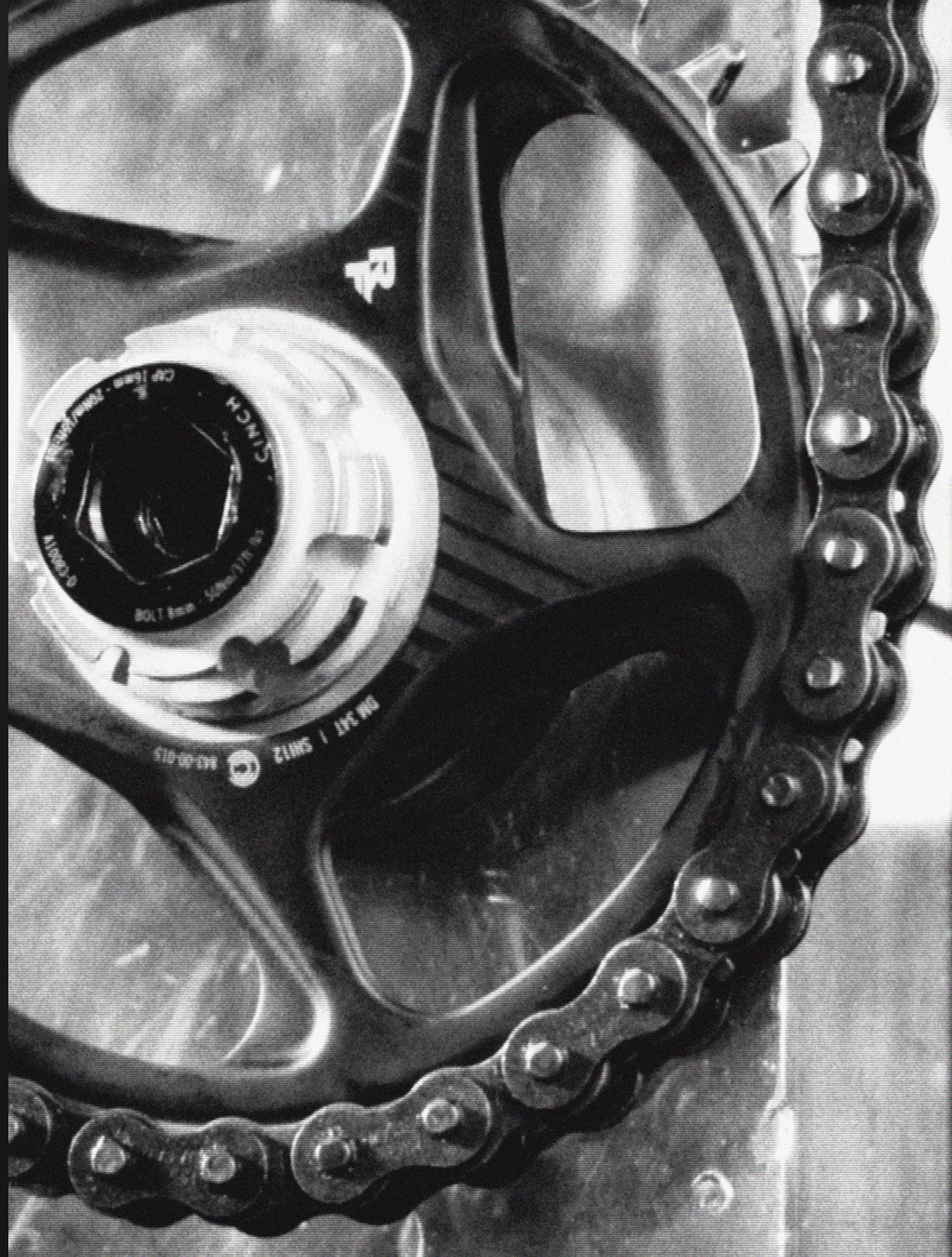


Impact resistance is our rock strike test. We drop an anvil onto chaining teeth (covered only by a chain) and repeat this raising the anvil higher and higher until the chaining becomes unrideable.

The Era ring held up to the impact strength of any other full-alloy ring we tested.

Ultimate strength testing means applying torque to the Era ring up to its breaking point, using a motorcycle chain. Era survived up to 9500 Newtons of force. This is far more output than is possible on any mountain bike or e-bike up a punchy climb. In fact, that's more output than a Cummins 5.9 diesel motor.

The Era chainring saw over 3,200 tracked test hours under 44 different riders. We haven't worn one out yet, and don't expect to anytime soon.



83g DMW 32T configuration.

30T, 32T and 34T.

Two chainlines.

DM variants yield a 52mm chainline. DMW variants yield a 55mm chainline.*

Lasts 40% longer than a titanium ring.

*RF136 spindle.



CINCH crankset compatibility.

Five times the life of an alloy ring.
Less than twice the cost.

Complete compatibility.

SHI-12 variants – compatible with Shimano 12S drivetrains.
NW variants – compatible with all other modern 10, 11 and 12S drivetrains.



ERA CHAINRING IS A PRODUCT FOR THE DREAM BUILDERS AND THE OBSESSIONISTS.

It's about investing in your bike for the long-term payoff. Put this ring on and forget about dropped chains, but don't compromise on weight.

Steel teeth, carbon spider, and an aluminum CINCH interface. **With the weight of aluminum and the lifespan of steel, Era is a chainring without compromise.**

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