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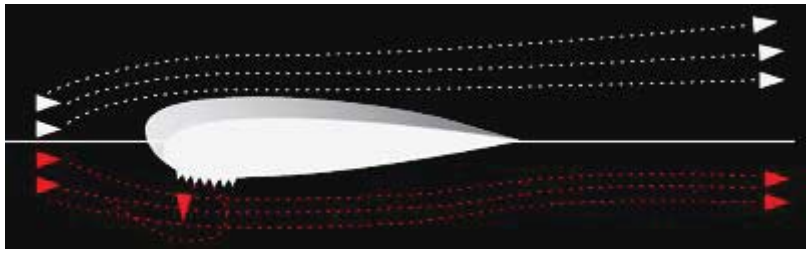
sales@918xc.com or 918-327-9135

R-Surface Technical Information

Ridley's Aero line also incorporates their proprietary boundary layer technology, or R-Surface™. The boundary layer is a thin band of air that "adheres" to the surface of an airfoil. A thin boundary layer allows the air mass to travel around the frame smoothly. Using data from extensive wind tunnel testing during the painting process, Ridley engineers applied texture to strategic locations on the frame. Air moving over the textured surface becomes excited, which causes it to travel smoothly around the frame instead of detaching, creating speed-sapping drag. The use of R-Surface™ on the new Dean and Noah makes Ridley the first company in the bicycle industry to use this aerodynamic technology on bicycle frames.

STANDARD PAINT



R-SURFACE

AERODYNAMICS

R-Flow™ Technology: Jet Foils, slotted razor-sharp airfoils on the fork blades and seat stays, redirect the airflow away from the turbulence of the rotating wheels and in fact, create a vacuum that further defeats aerodynamic drag. R-Flow is an exclusive Ridley technology used on both the Dean and the Noah for 2009. Oil mapping techniques applied to the frame in the wind tunnel-indicates where the airflow remains attached smoothly around the frame tubes and exactly where turbulence begins to occur. After establishing the frame's basic aerodynamic profiles, our engineers used oil-mapping to indicate where improvements could be made, and then applied a special surface texture in key areas to reestablish laminar airflow: R-surface.

ERGONOMICS

Inspired by the time trial courses on the ProTour, the Dean's relaxed head angle balances the rider between the wheels for secure cornering and more precise handling. Maximum watt performance is not possible without a precise fit. To this end, the Dean's threeposition seat mast maintains a direct line through the saddle to the bottom bracket, thus saddle height adjustments will not affect the rider's position over the crankset. The Noah takes full advantage of the Dean project's aerodynamics. The fork blades and chainstays incorporate Jet Foil technology and the frame is profiled to the razor edge of the UCI's aerodynamic restrictions. Aerodynamics alone, however, cannot claim victory on the ProTour. The Noah's legacy of stiffness, aggressive acceleration and responsive steering has been integrated into an R-Flow™ sculpted machine that is arguably the fastest racing bicycle in the world.

INTEGRITY

To perform at the highest level, every component of a bicycle, every thread of carbon, the smallest piece of hardware, must be chosen with a single purpose in mind; victory. We use a special foam molding process to create R-Flow™'s knife-edge airfoils. Tucked one millimeter behind the seat tube, Microadjust fittings in the Dean's rear dropout allow the tire to be shaded from the wind. Recessed, 1.5-inch headset bearings and an oversized steerer tube ensure precise communication between the Noah's ultra high-modulus carbon frame and fork. The monocoque frame engulfs every millimeter of available space in the bottom bracket area to create a direct link between rider, crankset and contact patch.
We outfit our frames with components that have earned the right to compete.