

# FELT BAYONET 4 FORK

The all-new Bayonet 4 was designed and purpose-built to be a UCI-legal steering system that, when combined with the pro-level DA triathlon/TT bike, offers a faster, more aerodynamic front end than ever before. At Felt, our engineers spend countless hours analyzing and concepting aero models in CFD, then testing those models, both in the wind tunnel and out on the road with Felt pro athletes.



# Features <sup>for</sup> Bayonet 4

1. Bayonet 4 Fixed-Position Stem
2. Internal Axis Shaft
3. Brake Cover
4. External Steerer Column

5. Fork Crown
6. Aero Fork Blades
7. Carbon Dropouts
8. Junction Box Stow

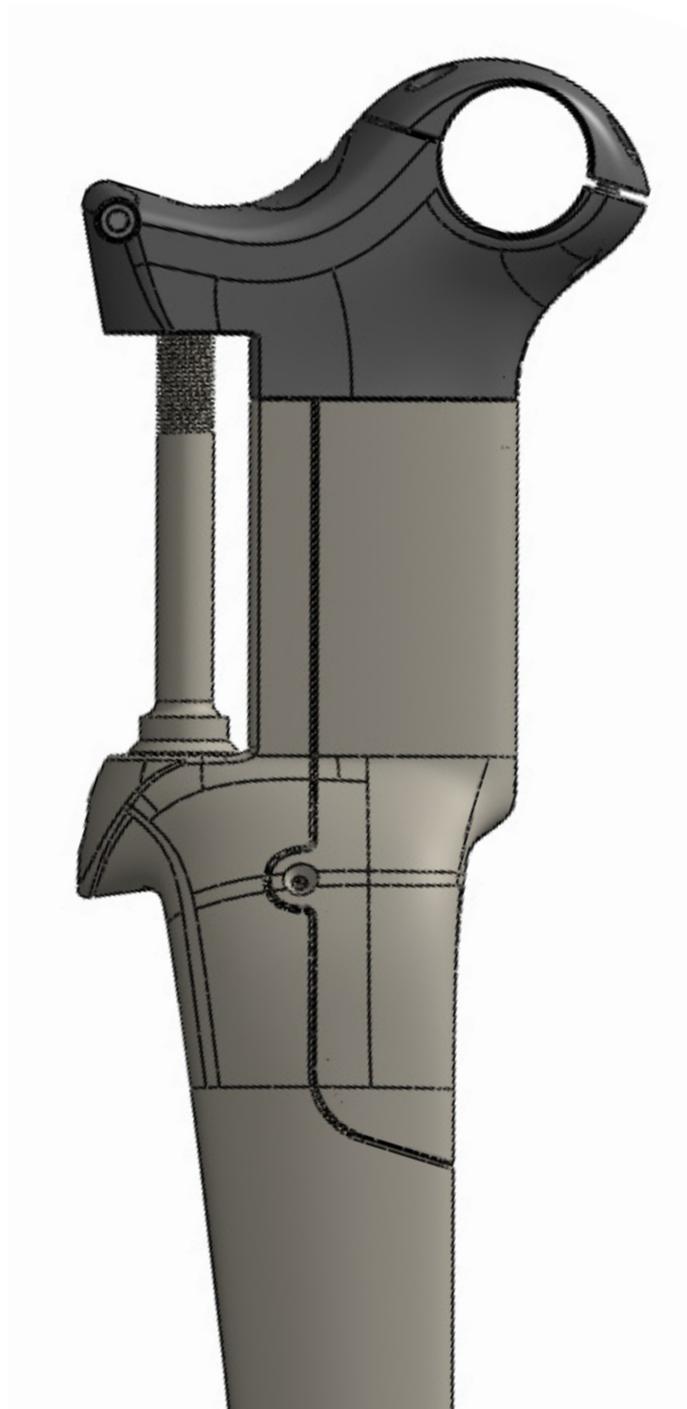
With electronic shifting continuing to gain popularity among performance-minded triathlon and TT racers, the development team also created a solution to integrating wires and cables in a clean fashion. A compartment, integrated into the stem, houses these items, shielding them from wind and drag.



# Bayonet 4 Aerodynamics

One way to track the progress of cutting-edge aero technologies over the past few years is to examine the evolution of Felt's groundbreaking Bayonet Steering System. The Bayonet is a central component of the Felt DA, a bike that has won Ironman and World Cycling championships, Olympic gold medals and countless other races against the clock. It represents the most cutting-edge thinking in cycling aerodynamics.

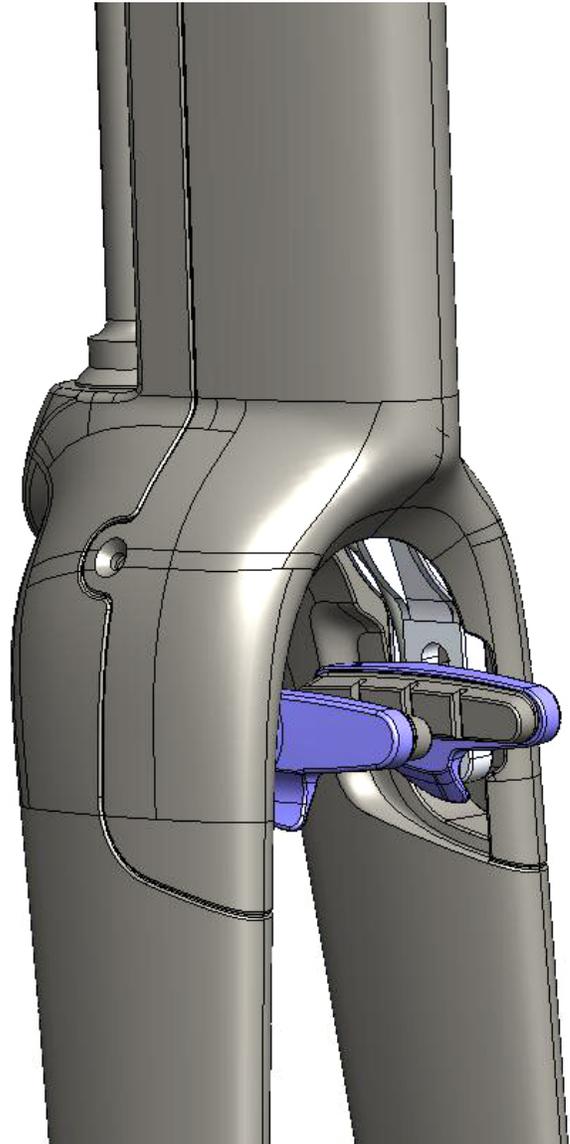
Now Felt is introducing the all-new Bayonet 4. This new steering system, designed to integrate seamlessly with the current DA bikes, has been proven through wind-tunnel tests to be Felt's fastest fork-and-stem combo yet when it comes to aerodynamic performance.



The key updates with the new Bayonet 4 include a front brake cover that completely hides the caliper from the wind; a new compartment to stow cables and wires associated with electronic shifting into the stem; and reshaped fork blades that further reduce aerodynamic drag.

Each of these new elements was created through an exhaustive development process. And the results are clear to see: The Bayonet 4 helps make the new DA Felt's most aerodynamic UCI-legal time trial/triathlon bike ever.

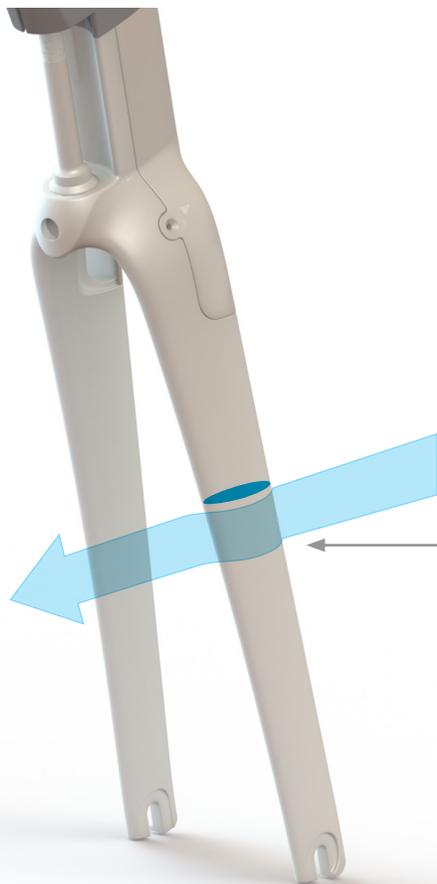
Like earlier Bayonet systems, this new frame/fork interface is designed around an external steerer tube. That steerer tube's aerodynamic leading edge, combined with its shielding of the head tube, creates an effective airfoil that decreases drag. And the Bayonet 4 is not only more aerodynamic, it's also stiffer than a traditional steerer tube. That means sharper steering precision and more confident handling on the road.



The Bayonet 4 boosts stiffness not only in the fork, but in the frame as well. By using a Threaded Axis Shaft inside the headtube to adjust bearing pre-load, engineers were able to use headset bearings just 19 mm in diameter. This makes the entire length of the headtube extremely narrow, not just the middle section. And because of the overall strength and stability of this design, less carbon material is needed.



The most visible change with the Bayonet 4 is the complete integration of the brake and fork. A drag-reducing fairing in front of the brake produces a wind-cheating leading edge and completely hides the brake from the wind. This design plays a big role in reducing overall drag compared to previous Bayonet systems.



Because the Bayonet 4 was engineered for time trials and shorter triathlon efforts, more emphasis was placed on the lower yaw angles that typically occur at higher speeds. So what's the bottom line? In wind tunnel tests, the Bayonet 4 proved faster than the Bayonet 3 at all yaw angles. And it performs best at those lower yaw angles that are common at higher speeds. So the faster you ride, the better it performs.