

The Problem

To create a device to reduce the effective frontal area on a bike. At 30 mph 90% of the cyclist's energy is spent overcoming his own frontal area. An airfoil shape allows the air to flow smoothly over the riders body, and reduces the C_D (coefficient of drag). Such a product must include:

1. High clarity
2. Easy on and easy off
3. Help in head winds
4. Light weight
5. Withstand crashes
6. Adjusts vertically
7. Go faster!



Zipper...



Shown above: New flat-topped Presto-ZZ and mount system.



...Is the Answer

A clear, lightweight wind screen made of bullet-proof Lexar® (GE) Polycarbonate Plastic! Lexar® is the same material used in armored cars and drive-up tellers. The strong lightweight mounting system consists of 1.5 inch wide velcro straps with epoxy coated aluminum brackets. Easy to remove, the Zipper fairing actually rolls up for ease of transport.

Testing is an ongoing process, starting with a bike, fairing and a commuter, riding year round. Even though wind tunnel tests can provide valuable data, real asphalt roads, and strong winds (tacking around at all angles) give the designer a better feel of the more sensitive ground effects associated with low speed vehicles. Thus another new Zipper fairing is born.

FRONT COVER PHOTO: Bernard & Françoise Magnouleux at North Kapp, Norway with Ryan-ZZs through a blizzard.

Zipper ZZ-T



Toured the U.S.A. west to east, 3,400 miles. Photo courtesy of Harry Johnson.

Original Zipper Fairing Patent. Design Patent No. 248,638.

You can see from the original patent that the road bike fairing went down a lot lower in the front. This was streamlined in making the Zipper T in 1981. The old style Zipper is still available on request however it should be noted it is close to the brake levers! The standard ZZ-T comes in the 0.060" thickness Lexar® before thermoforming. Weight is about 10 ozs. It is designed to flex in cross winds and reduce some of the side forces directly on the steering axis. The thicker version of .080 Lexar® is much more rigid and quieter. It weighs 3.3 ozs. more. This is recommended for tandems, especially, since they usually have wider bars. Here are a few comments from a very satisfied customer.



“The mounting instructions are clear and easy to understand. It doesn't take a rocket scientist to set it up. It took less than 10 minutes.

The ZZ-T has increased my average speed and maximum speed. It has been great at keeping me warm this winter. I have experienced no handling problems and the noise, (what noise?), has been so minimal. Of course the fairing is engineered to provide you with the lasting quality and built-in durability of something you will enjoy and never regret purchasing, not to mention the increased visibility you have in traffic.

If you're serious about cycling, get a Zipper today and become **STREAMLINED!** Thanks for a great product Karl!

- Jeffrey S. Saas, Sevierville, TN

Weight	Dimen.	Taper	Mounts
.060-14 oz.	22.5" wide	straight sides	epoxy coat
.080-17.3 oz.	15" top-bot	in at top	of T-bracket

Zipper Thriller



"Thriller" Fairing.

A larger alternative to the Zipper-T for road bikes and Hybrids. Basically a 40" super Zipper with longer wheel well cut out. Our tests show a 2+ mph speed increase at 25 mph. Other advantages are weather protection, high rider visibility (especially at night with a light) and shielding from most road debris.

Lower mount is a bent aluminum T-5, strong, road tested type mount with a neoprene/stainless clamp. Will not rust or damage the paint. Easily on/off with a 6 mm wrench for the top two clamps and wing nuts down below.



Zipper Thriller with body skin attachment.

“I've just been out on a cold November day on my old tourer fitted with Zipper Thriller. It was great! Almost as good as riding a recumbent! I was very impressed...”

-Patrick Shaw, Future Cycles, England

Weight	Dimen.	Taper	Mounts
2.75 #	40" long	18" at top 15" at bottom	10.5" T-bracket

Zipper Super



"Fast" Freddie Markham riding World Champion "Tour Easy" by Easy Racer's Inc. with specially designed Super Zipper. (photo courtesy of Sharper Image).

The super Zipper was designed in conjunction with Gardner Martin, Easy Racer's Inc., back in 1984, as a larger alternative to the existing E-Z (smaller handlebar) fairing. At a full 44" horizontal length and 19.5" width at the handlebars, it offers greater weather protection and higher streamlining at under 2#. 10% speed increases are common compared to no fairing at all. Many aircraft enthusiasts comment on the high clarity of the bubble!

The standard Zipper Fairing and the full-length Super Zipper Fairing can be purchased directly from Easy Racers, (they can be contacted at (408) 722-9797), or from Zip Designs.

Other long wheelbase recumbents with upper handle-bars can accommodate the Super Zipper. Upper T-bracket set (T-6061 AL.) with 7/8" diameter steel clamps and lower aluminum tabs support longer fairing. This can fit the Linear (w/bars), Rans Recumbents or home built Tour Easys.



Shown on Rans Recumbent.

Weight	Dimen.	Taper	Mounts
1.75 #	top 19.5" wide	bottom 12"	8" T-brackets

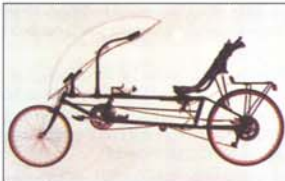


Zipper leading 70 riders through notoriously wind-swept Livermore-Fairfield section-San Francisco Bay "Go Green-Belt" ride. Danny Ray Burdick shown at the helm of "Sasquatch", his Zip-equipped Ryan Vanguard recumbent bike.

Zipper Ryan

This fairing is made of the stouter thickness .080 as requested by Dick Ryan. Very quiet and with little flexing it has been thoroughly tested. The fairing adjusts vertically in the rear so the riders eyes are just over the top. The front can be adjusted as well to just clear a light.

The black anodized mount system is tooled for one 5 mm wrench to fit all bolt heads. The frame clamps have steel Heli-coils so the steel bolts won't strip out the aluminum. Except for two steel uprights, the whole mount system is made of the best, high grade aluminum, 6061 T-6, and weighs only 1.25#. This is pretty phenomenal for 2# handlebars to support a 44" long fairing.



“I have one of your Zipper fairings on my Ryan Vanguard recumbent and have found an amazing difference from riding with my Zipper fairing as compared to riding without it. I find a big advantage at low speed when fighting strong head winds. My average speed on my favorite 23 mile course has increased from 12.1 mph to 13.6 mph. My riding season has increased from 8-9 months to 12 months a year.”

-David E. Burges, Hokes Bluff, AL

Weight	Dimen.	Taper	Mounts
2.75 #	top 21" wide 44" long	19" at foot	1.25 #