

ONE DOLLAR



WIND
SCREENS
FOR
HUMAN
POWERED
VEHICLES

Z ZIPPER[®]
ROAD
FAIRINGS
1988 CATALOGUE



ABOUT OUR COVER

Shown:
"Fast" Freddie Markham
on ZZIP DESIGNS
Ritchey mountain bike with
new mountain bike ZZIPPER.

Congratulations to the
Easy Racer Team: Gardner
Martin, Nathan Dean,
Alan Osterbauer and
Driver "Fast" Freddy
Markham!

The Gold Rush can now be
seen at the Smithsonian
Museum!



SMALL EASY RACER
ZZIPPER WINAMES COURTESY
EASY RACER'S INC.

FRED MARKHAM
PAUL McCREADY
MARY ANN BERGLAND
NELSON VAILS
JOHN MARINO
SCOTT BERRYMAN
MARK GORSKI
ERIC HIEDEN
LESLIE BARCZEWSKI
MERT LAWWILL
JOHN HOWARD
GREG MILLER
RON SKARIN
CHESTER KYLE
GEORGE MOUNT
BRYAN S. ALLEN
PETE PENSEYRES
ALEXI GREWL
GORDON SINGLETON
AMF—

Shown:
Our old style fairing

GREG MILLER
LEADING
THE
PACK!



S

TREAMLINING

Streamlining is the only remaining method for substantially improving the performance of a modern bicycle with high pressure tires and an efficient drive train. Consider that aerodynamic drag consumes fully half of a rider's power at only 10 mph

and an overwhelming 80 percent at 20 mph. You will realize what a poor shape a rider on a bicycle is for traveling through the air. Clearly those who take their cycling seriously, whether for recreation or for transportation, should consider the benefits of drag reduction through streamlining.

“I have just about recovered from Paris-Brest-Paris now (apart from dead nerves here and there), and managed to finish it over 10 hours faster, despite much less favorable conditions and about comparable fitness. On the way out to Brest it rained on and off and I was able to stay reasonably warm and dry without using a rainjacket (and wasting time putting it on and off and overheating). I also did not notice any significant headwind until near Brest, when it became more of a crosswind and blew the front wheel about a bit. Afterwards, at the finish, many people complained about severe headwinds, which I had not noticed (!). I feel also that as well as increasing speed significantly along the flat, the aerodynamic devices helped on gradual uphills and also on steep hills indirectly, as I was less fatigued when I encountered them. Nobody (except tandems) was as fast downhill and if I had had a gear bigger than 91” I don't think so many would have stayed in my slipstream.”

Stephen Poole
Ryde, Australia

SAFETY DEVICE

"I AM NOW MORE THAN EVER CONVINCED OF ALL THE ADVANTAGES OF THE ZIPPER ROAD FAIRING. WHILE RIDING IN CANADA THIS LAST YEAR OF 1987, MY WIFE COLLIDED AT HIGH SPEED WITH A GUY WIRE. THE HIGHWAY DEPT. WORKERS SAID SHE WOULD PROBABLY HAVE BEEN DECAPITATED IF SHE HADN'T HAD THE ZIPPER FAIRING. IT ABSORBED THE FULL IMPACT AND SHE ESCAPED WITH MINOR CUTS. THE FAIRING ALTHOUGH CREASED REMAINED USEABLE UNTIL A SECOND CRASH MONTHS LATER. I AM NOW REORDERING ANOTHER. THANK YOU FOR A GREAT PRODUCT."

FILLMORE WOOD
BUENA PARK, CA.



The World Famous Zipper® T

ZIPPER® are barred from most speed contests and by the International Cycling Federation for unfair speed advantage.

Z ZIPPER®

The ZIPPER® fairing reduces drag by over 20 percent by improving the flow over the rider's upper body. This results in a speed increase of 7 percent on level ground with no wind, or one gear on a ten speed. The relative advantage into a headwind is a lot greater.

ULTRALIGHT The ZIPPER® is unlike any motorcycle fairing. It is ultra-light and slightly "floppy" to absorb road shock. At 350 grams the weight of the fairing is hardly noticeable (a full water bottle weighs 490 grams).

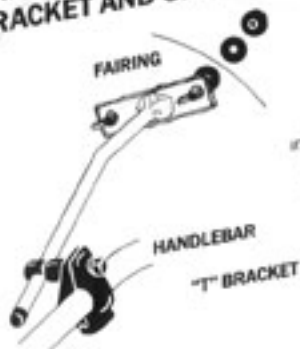
EASY MOUNTING The ZIPPER® T uses an adjustable aluminum mounting clips attach to the fairing shell and hook over the brake lever bodies where they are secured with velcro straps. The brakes can still be operated from all the usual hand positions. (Rubber brake hoods are required. Not compatible with extension levers.)

WEATHER PROTECTION is a secondary benefit of streamlining, but to the hard-core all-weather cyclist it is far more than a secondary consideration. We've received letters from riders telling us how well the ZIPPER® deflects insects, rain, snow, cold wind and the occasional stray pedestrian. Under such circumstances drag may be totally secondary, but the ZIPPER® is still hard to do without.

A 2 oz. Bottle of Plastic Cleaner comes with each new ZIPPER

Zipper

NEW MOUNTING SYSTEM: T BRACKET AND S.S. BRACKET



Now available in 7" and 10" lengths 30" for drop handlebars

T' BRACKET

Found to be light and strong—able to withstand 7# 45 degree bends with restraining until fatigue. Wt 56.3 gms (1.98 ozs) ea with attaching hardware. Bolts attach thru fairing then bracket with wing nut on the inside of screen. Rubber washers sandwich fairing.

S.S. or FORKED BRACKET

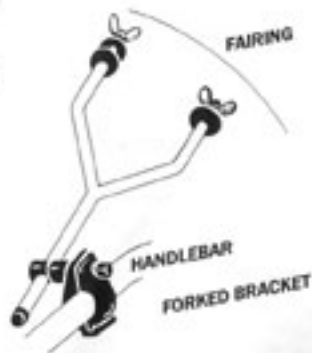
Very strong but slightly heavier. Mounts thru fairing and uses same 1/4" wing nut with rubber washer, but with custom nylon washers on both sides. Wt 62.1 gms (2.2 ozs) ea with attaching hardware

Fairing gets sandwiched with custom rubber washers and mounted with bolt head on outside and then thru mount and attached with wing nut on inside. No tools necessary!

Mounts are very quiet—rubber washers worked well at Spring HPV meet in Visalia, CA. Both mounts fit all current or previous ZIPPER'S space needed on both sides of bars! 1/4" solid aluminum shaft gets tightened with 6mm hex head wrench, same as AM-ZZ Carrier. Solid shaft can slide thru clamp opening for optimum positioning of fairing and then tightened. The clamps have the same tough black epoxy coating as our ZIPPER T Brackets.



Wt 1/4" clamp 78.1 gms or 2.75 ozs
Wt 1" clamp 74.7 gms or 2.64 ozs



EXAMPLE
Wt total hardware of T' Bracket & Clamp (1/4")
 $2 \times \text{brkt} + 2 \times \text{clp} = 2 \times 56.3$
 $\text{gms} + 2 \times 78.1 = 268.80 \text{ gms}$ or 9.5 ozs.
(262.00 gms for 1" clp or 9.26 ozs.)
Wt total hardware of S.S. Bracket & Clamp (1")
 $2 \times \text{brkt} + \text{clp} = 2 \times 62.1 \text{ gms} + 2 \times 78.1$
 $\text{gms} = 280.40 \text{ gms}$ or 9.91 ozs.
Wt total hardware of S.S. Bracket & Clamp (1")
 $= 6.80 \text{ gms} = 273.60$ or 9.67 ozs.
Summary of weight distribution
More than 1/2 of weight is on the bar
in the way of the steel clamp
(i.e. 1/4" clamp - 5.5 ozs out of a total of a little less than 10 ozs.)

MOUNTING DEVICE CHANGES

NYLON
WASHER

RUBBER
WASHER

KITS

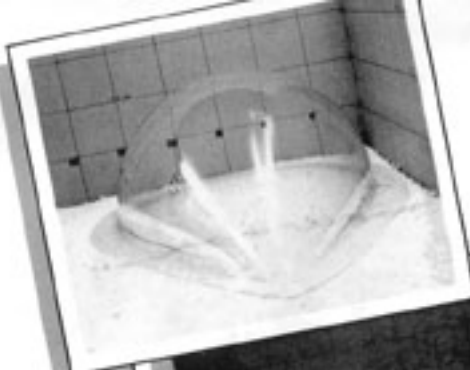
Kits come equipped with edging, glue and gluing syringe. Instructions include tips for trimming, gluing and working with Lexan[®]. If difficulties are encountered—return the marked Fairing to ZZip Designs and I will complete the gluing.

If desired, a zipper can be sewn into the Lexan[®] for a small charge, and the other half of the zipper is shipped with the fairing. A lot of inventors use it with Spandex to act as a body stocking or "Girdle" as we call it.



LONG TEAR DROP FAIRING

A full 44" long and 18" wide. This fairing attains full width at 1/2 the length. Starting with 8" in width at the front and an even taper to a width of 18" at about 1/2 the length or 22". Headroom not recommended over 13". Shipped with 2" flange in special box. (Add \$20.00)



TEAR DROP FAIRING

Specifications

Length: 36"

Width: 18"

Thickness: 0.060", 0.093" (Recommended)*

Weight: 0.060" approx. 2.35#

0.093" approx. 2.55#

(Both weighed with 2" Flange)

Headroom: 9 1/2"

*Easy Racer Team opted for the thinner 0.060" Tear Drop Fairing but please note—it is very thin on the sides at flange connect. It is recommended that a height of 3-4" above the flange for a stronger mounting point or go to the thicker plastic.

NEW

A new extra wide long bubble is available in both thicknesses at no extra charge. Easy Racers uses the 0.093" version of this for their body sock fairs (i.e. as seen on the cover of the Hammacher Schlemmer spring catalog). Simply ask for 1" extra width!



OTHER EXPERIMENTER KITS by ZZIP DESIGNS

High Clarity. Low Distortion Fairings made of tough Lexan[®] Plastic. Please Note: Tints are available on the 0.125" thickness only. (Grey & Bronze) This is the same shape that the Super ZZipper is derived from. Easy Racer's Inc. prefers the 0.060" thickness.

Specifications

Length: 44.5"

Width: 20"

Height: 12" (or otherwise specified)

Weight: approx. 2.3, 2.5 & 2.8# respectively

Thicknesses: 0.060", 0.093" & 0.125"

Wheel Cut Outs: 3" wide, 9-14" Long

(Please Specify)

SPEED RECORDS

Phenomenal speeds have been attained in recent years at the annual International Human Powered Speed Championships. By reducing aerodynamic drag to less than a tenth of that of a standard bicycle, a man has been able to pedal to over 65 mph. These highly specialized speed machines are not yet ready for the open road and for mixing with traffic. However, their offsprings, the recumbent bicycles, are now appearing and will offer advantages to more and more cyclists as they are refined and as we learn to accept them.



Shows:
AM/ZZIPPER Fairing with
'Girdle' or body stocking



AM/ZZIPPER FAIRING

This fairing is intended to enhance the revolutionary AM7 in the areas of drag reduction and weather protection. Dr. Moulton was also adamant that the fairing not degrade handling and that it be as easily transportable as the AM7 itself. The AM/ZZIPPER succeeds on all counts. Measured drag reduction is very nearly 20 percent. Coasting to over 50 mph and riding in gusty winds have proven good handling. The fairing is easily installed and removed and rolls up compactly for stowage. Weight is approximately two pounds.



WORLD CHAMPION "TOUR EASY" BY EASY RACER'S INC. WITH SPECIALLY DESIGNED SUPER ZZIPPER

The standard ZZipper EZ Fairing and the full-length Super ZZipper Fairing can be purchased directly from Easy Racer's or from ZZIP Designs.

Contact
Easy Racer's Inc.
2891 Freedom Blvd
Dept. EZ, Box 255
Freedom, Ca. 95019
408-722-9797
Shown at right
'Girdle' or body
stocking for
The Tour Easy





Pete Penseyres and Rob Templin
San Francisco to Los Angeles
Tandem Record: April 1, 1984
19 Hours 52 Minutes 51 Seconds.
using a Zipper™T



Jim Woodhead
San Francisco to Los Angeles
Solo Record: June 17, 1982
21 Hours 20 Minutes 41 Seconds.
using a Zipper™T with 'Girdle'
attached



**Forwarding and
Address Correction Requested**



ZIP DESIGNS DAVENPORT, CA 95017-0014 408-425-8650