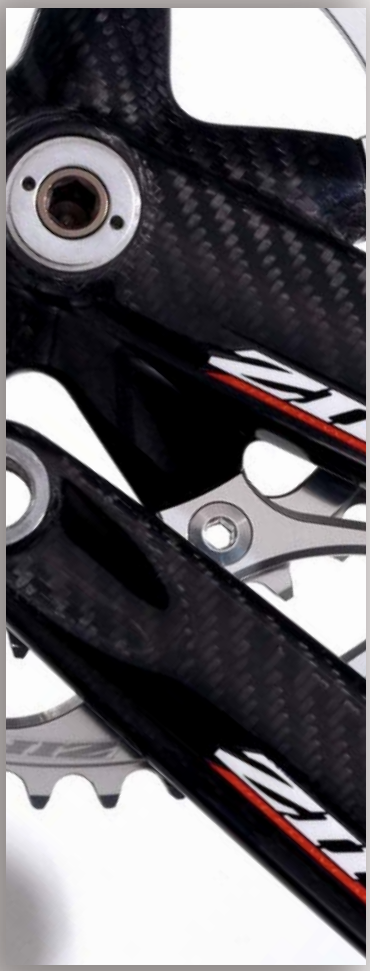


“The only way to discover the limits of the possible is to go beyond them into the impossible.”

– Arthur C.Clarke

ZIPP

SPEED WEAPONRY.

2007

CSC
NOBILI
500 ECA 92

ZIPP**PASSION**

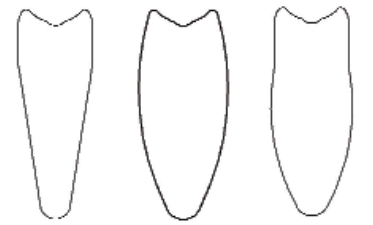
The shape of speed No other company in the world puts as much time, energy, and force of will into optimizing the bicycle wheel for maximum speed. It's a constant pursuit. An expectation that every year we'll push the envelope that much farther. Deliver more speed, more performance, and more wins for our riders. Which explains why we're also the only wheel company to own two aerodynamic rim shape patents, each optimized for a different application, that push well beyond the aerodynamic confines of other company's traditional V-shaped carbon rims.

The intentionally radical shaping reattaches the drag-inducing airflow that breaks and swirls off as the inherently un-aerodynamic round tire brutishly punches through the air. The smoothed airflow means less drag, faster times on the course and bigger wins for you.

Designed for the sweet spot Meteorological data tells us that on any given day across the US wind speeds at 1 m above the ground will average 8mph, which equates to an effective wind angle between 0-20° for a rider going 22mph/35kph. So why the weather report? Because a standard V-rim is most effective at 0-10°, whereas the patented Zipp rim shapes combined with our ABLC dimple technology allow us to tune the rim for optimum aerodynamic effectiveness between 0-20° – a range that encompasses 85% of all real-world riding conditions. As you can see in the graph on the following pages, not only are we faster than our competitors when they are at their best, we keep picking up speed even as they are slowing down. And that bodes very well for you the next time you roll up to the start line or head out of the transition area.

The power to win Every 0.1-lb. of aerodynamic drag saved in a wheel is equal to 6 watts of power. This power savings illustrates why rim shape is so critical. But there are more watts to be saved even beyond the rim. By paying careful attention to spoke count, shape and length you can reduce the number of watts required to spin the wheel at race speed. The graphs on the following pages show the real-word "spinning wattage" savings of Zipp wheel over our competitors. The total wattage savings of the wheel is the sum of forward watts and spinning watts. To illustrate, our 808 wheel already shows a 27 watt advantage in forward motion over the stock 32-hole box-section wheel. But the box section wheel also requires an additional 7 watts just to keep it spinning at 30 mph. The combined energy savings between forward wattage and spinning wattage is an amazing 34 watts. That's like giving the average cat. 1 racer a 10% bump in power output at LT. From a triathlon perspective, that's like saving a 500-700 calories for the run at IM distance– you may never bonk again!

About your pain threshold – it just got 12% higher Cycling has and will always be a contest of pain management. Thankfully we have the technology to help. Zipp's exclusive VCLC process sandwiches a viscous vibration-killing material between the layers of carbon. The result is a 12% reduction in vibration and the road fatigue it induces no matter how fast or how long you're riding. The fact that the vibration dampening also increases the wheel's contact with the road for less skittishness and higher cornering speeds means that you'll still be flying past the competition even after 5 hours in the saddle.



Traditional 'V' Shaped Rim | Zipp 'Toroidal' Rim | Patented 'Zipp Bulge' Rim

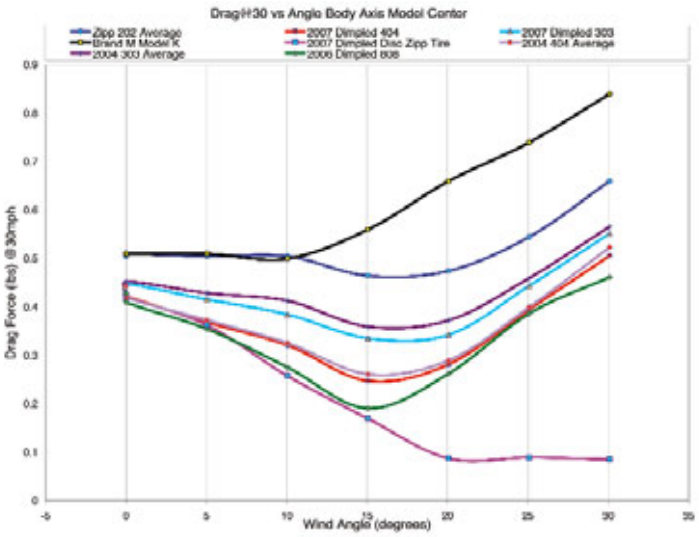
ZIPP**TECHNOLOGY**

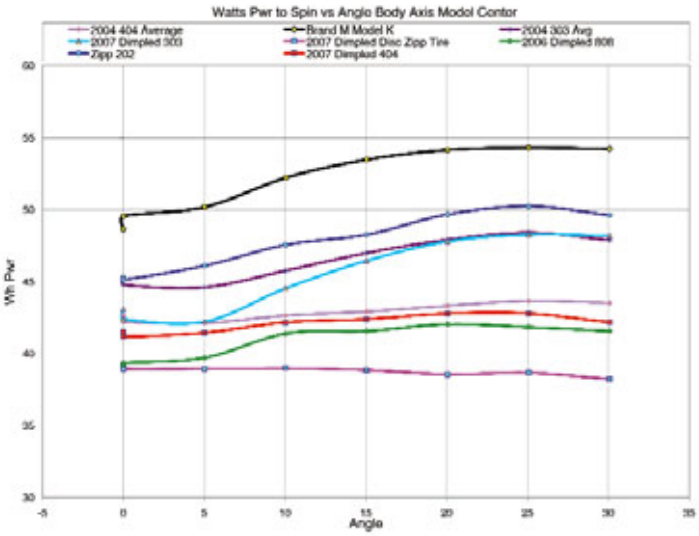
Only the strong survive Let's dispel this rumor once and for all. Carbon is not delicate. It regularly pulls 7 g's on fighter planes, hurtles down Formula 1 tracks at 240 miles per hour and holds the international space station together. However, all these carbon feats are only possible if the engineering team truly understands the how and why of carbon construction. Combine this with the fact that, of all the things you can do with carbon, building a bicycle rim is actually one of the most technologically demanding. You can see why other companies struggle to balance strength, stiffness, toughness, impact resistance and braking performance. Rest assured, with 20 years of composites experience we're up to the task. Our ITC carbon lay-up technology is the envy of the cycling industry and we have further upped the ante by increasing damage tolerance of the rims by nearly 50% over the previous design for 2007. Not to mention we have the distinction of being the only carbon rims to be ridden on the dreaded cobbles and dirt roads of all the Spring classics from Flanders to Ghent, LBL and the queen herself, Paris Roubaix. Literally tougher than hell.

ABLC Pushing the boundaries Aerodynamic Boundary Layer Control uses a highly complex and patented pattern of dimples to form a turbulent boundary layer immediately over the surface of the rim. This layer of high energy air allows the primary airflow to remain attached to the rim throughout the entire "Sweet spot" range of wind angles that account for 85% of all real-word riding conditions. This compares to our competitor's effectiveness in 25% real-word riding conditions.

VCLC smoothing the hard road Zipp's exclusive Visco-elastic Constrained Layer process sandwiches a vibration-killing material between the layers of carbon to reduce road vibration and the muscle fatigue it induces by 12% – no matter how fast or how long you're riding. The vibration damping also increases wheel contact with the road for less skittishness and greater cornering power on rough roads.

M2CM The marriage of performance and convenience A Zipp clincher wheel exclusive, this process allows a fully structural carbon rim utilizing both VCLC and our patented rim shapes to be combined with a heat dissipating aluminum braking surface during the molding process. The aluminum surface is then machined for optimum braking response resulting in the smoothest braking, highest performance, most aerodynamic clincher rim in the world.





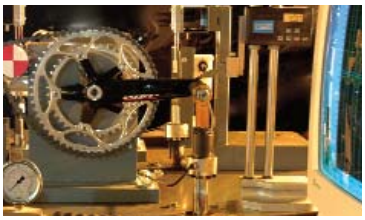
ZIPP**300**CRANKSET

Zipp 300 crankset and 185 Titanium BB The Zipp 300 crankset is further improved upon for 2007 with the addition of the 185 Titanium BB. The combination of the two components with Zipp's proprietary 6Al/4V hardware result in a Crank/BB system that is more than 100 grams lighter than competing crank/BB systems.

The heart of the Zipp 300 crankset is a revolutionary bonding process which allows the carbon fiber to bond to the aluminum with a strength similar to that which it bonds to itself. This process is so specialized and sensitive that it is thus far available only in the US, and only from 3 aerospace suppliers. While certainly not inexpensive, this process does increase bond strength by more than 3X when compared to traditionally employed methods, meaning that the Zipp crank can utilize two intricately forged and machined aluminum slugs only where they are needed and does not require a heavy internal aluminum spine to hold the crank together. This bonding process, allows the Zipp 300 to use more than 200 grams less aluminum than other designs, allowing designers to utilize nearly 80 grams of additional carbon fiber in order to increase strength and stiffness resulting in a crank that is truly supreme in terms of stiffness and durability.

Searching for an alloy that is as strong as 7074, but with significantly higher fatigue properties, Zipp discovered 2XXX aluminum from Alcoa. This aluminum was developed as a replacement for 2024 in military aircraft, and allows for the further removal of weight due to it's significantly higher fatigue strength. In fact, Zipp 300 cranksets have achieved more than 3.5 million cycles at 1500N (300lbs) without crack initiation or failure in the bondline.

The 185 BB is the result of years of research into making a better BB, and after careful work with our bearing supplier, we feel that we have created the ultimate ISIS compatible BB. The 185 BB uses a 6Al/4V titanium spindle and alloy bolts to create a super light combination, riding inside two twin-row bearings. Titanium allows the spindle to be the standard 21.5mm diameter within the bearings, but nearly 23mm diameter between the bearings, thus making for a stiffer spindle than lightweight steel spindles that use a reduced diameter between the bearings. The spindle is then TiCN coated to stop galvanic corrosion and eliminate the need to use special anti-seize lubricants, while increasing fatigue life of the part. The bearings are a whopping 14mm wide (compared with 12mm for standard double row bearings) meaning they better distribute forces for a reduced ball load, and add considerable bending stiffness to the spindle as 28mm of the 76mm between the crank arms is actually constrained within the bearings! These ultra-precision bearings were designed and manufactured specifically for Zipp in Germany to the highest standards and use custom formulated waterproof grease to ensure that your BB will roll as smoothly at mile 10 as it does at mile 10,000.



A creative man is motivated

by the desire to achieve, not by the desire to beat others. ”

– Ayn Rand

ZIPP**VUKA CLIP**BAR

Vuka Clip is the culmination of numerous material and processing technologies perfected by Zipp in both aluminum and carbon fiber. Vuka Clip is the world's most aerodynamic adjustable aerobar, with more options than any other. The revolutionary patent pending compression sleeve design allows for the extensions to be adjusted without tools for both length and rotational position of the extensions, while the extensions can be cut up to 90mm for an overall length adjustment of nearly 120mm!

Carbon fiber arm supports hold EVA foam pads either directly over or 12.5 mm behind the basebar. The pad wings can be rotated fore or rearward offering 42 possible positions. Vuka Clip is designed to function with chicane, ski tip or straight extensions, all of which feature internal cable routing.

The precision machined aluminum body and compression sleeve are shot peened for optimal stress relief and fatigue strength, and all parts are coated with our special anodize process which eliminates sweat corrosion. All hardware is corrosion proof coated metric class 12.9 (aircraft grade). Vuka Clip is sized for 31.8 bars and integrates perfectly with Zipp SLC2 drop bar, and the clip bodies nest within the contours of the Zipp 145 stem for optimal width placement of extensions.

ZIPP**VUKA AERO**BAR

VukaAero – Bucking conventional wisdom The conventional wisdom has always been that you could make an aerobar that was itself very aero, but non-adjustable, or you could make an adjustable bar which would allow you to optimize your position, but was itself, not very aerodynamic. With VukaAero, all of the rules have changed. Patent pending biaxial compression sleeve technology has allowed us to create a bar with 4 axes of extension adjustability as well as interchangeable extension shapes, with only 2 bolts required to make adjustments and almost no additional frontal area to slow you down. VukaAero allows for an industry first +/-2.5° angular adjustability in any direction including vertical so that you do not need to angle the entire basebar in order to tweak your hand position. Fully integrated adjustment system allows for internal cable routing where the shift cables actually rout through the extensions and out of the adjustment bolts themselves, allowing for the cleanest cable routing of any bar on the market. Low speed specific, wind tunnel designed, aerodynamic wing section of the basebar utilizes a wing shape developed for sail planes and can be angled as much as 5 degrees without serious drag penalty, this shape also allows for a thicker bar section for increased strength and stiffness without increasing aerodynamic drag.

Ergonomically designed hand grips were perfected through over 100 digital and physical prototypes, ensuring the most comfortable hand positions ever seen in an aerobar. VukaAero's 25mm drop and 100mm reach simulate identically the position of the brake hoods on a standard drop bar, and the grip end shape and brake lever allow for superior comfort and control (including use of the carbon fiber brake levers) when riding 'on the hoods'.

Carbon fiber armrests offer 3 width options when bolted to the basebar and over 20 when paired with optional forged adjustment wings. These super-light armrests hold an industry first dual density EVA foam pad covered in a stitched anti-bacterial Lycra® cover for superior comfort as well as durability.

ZIPP**145**STEM

145 Full Carbon Stem Each Zipp stem is hand wrapped from more than 50 pieces of precision cut carbon in order to ensure stiffness and strength along with elegance. Utilizing similar bonding and carbon wrapping technology as the revolutionary Zipp 300 Crankset, the 145 stem is the stiffest, strongest all carbon stem available. The elegant forged aluminum faceplate is highly polished with a micro-thin Stainless Steel insert to ensure maximum stiffness and durability. The M4 titanium faceplate screws are manufactured alongside those used by Ducati for MotoGP racing, and are guaranteed to be as strong as they are light and elegant. Available in both 26.0 and 31.8 diameters, the 145 stem weighs between 135 and 150 grams depending on size/diameter and with carbon steerer tube cap and step-down spacer for 1" steerer tubes.

> "Throughout the centuries there were men who took first steps, down new roads, armed with nothing but their own vision." – Ayn Rand

SLC2 Bar

SL Bar

ZIPP**SL/SLC2**BAR

SuperLite The result of nearly 3 years of extensive research and development, countless hours of FEA analysis and more than 40 laminate revisions, the Zipp SL handlebar at 164g grams is the new standard for drop bar performance. The Zipp SL is a re-invention of everything you thought a handlebar could be. We carefully developed this bar to be not only stiff and strong, but also very comfortable. Dual cable routing grooves and constant taper flats transition from 31.8mm diameter at the stem clamp to 24.2mm diameter at the bends making for a perfect shape in your hands.

The SL has surpassed the most stringent test standards in the world including the DIN+ standard at EFBe laboratories in Germany, and even surpassed a modified DIN+ test with an extra 50N added to all loads! The drop angle is only 20 degrees for higher brake lever position and dual radius bends in the drops allow for up to 15mm of brake lever reach adjustment. For custom geometry and excellent bike setup we offer the 164g SL bar in 40, 42, 44 and 46cm widths. The ultimate bar when every gram counts as much as stiffness and strength.

SLC2 The SLC2 is a product we've been dreaming of for a long time, but was only truly feasible after the SL was fully developed. The goal for this bar was to provide a massively stiff handlebar for seriously powerful sprinters, climbers and track use, while including clip-on extension capability with no real weight penalty. We started out by keeping more than 60% of the bar width at the same 31.8mm diameter as at the stem clamp, then redesigned the entire laminate structure to include strategic strengthening plies in order to handle clamp pressure of bolted on extensions, plus stiffening plies oriented specifically to handle sprinting loads. The Zipp SLC2 has full length dual cable routing and the same 20% drop angle as the SL bar meaning that you won't have to tilt your bars upward to get that ideal lever placement. Using Zipp's exclusive VCLC technology we were able to design in a very solid yet lively feel to the bar without being harsh. At around 185g, the SLC2 delivers on every level. Whether you need an ITU legal drop bar/clip-on setup for triathlon, century ride or occasional time trial, the SLC2 is a winner.

Contour Bar

ZIPP**CONTOUR**BAR

Contour Bars Zipp Contour Bars are a road style all-carbon drop handlebar with everything you would expect of a Zipp product: cutting edge technology, aerodynamics, light weight, strength and real world fit and function. The Contour Bar's aerodynamic performance is second to none, courtesy of an airfoil top section (with dual cable grooves) with no round cross-sections anywhere on the bar. Precise shaping results in a handlebar that achieves the normally unpaired attributes of both comfort and stiffness. Zipp's exclusive VCLC technology offers substantial damping of high frequency, fatigue-inducing vibration. Providing comfort and control, the ovoid cross-sectional hook portion of the bar is optimized for the perfect wrist angle while the aerodynamic airfoil top section elegantly hides the cables and provides a comfortable surface regardless of your hand position. Finally, the drops fill your hands with a sure and natural feeling. You may not notice any of these refinements one at a time, but combined you're sure to agree the B2 is one great bar: fast, stiff, light and comfortable. The Contour is available in 31.8mm in widths from 42-46cm. A perfect balance of stiffness, comfort, ergonomics and aerodynamics in a single package.

ZIPP**ZEDTECH**WHEELS

ZEDTECH Performance refined to the very edge of fanaticism Absolute perfection. It is the unyielding standard we apply to ZEDTECH. Because we know it's the standard you hold yourself to. Performance not merely up to, but over the limit of all reasonable boundaries. No material too exotic, no construction method too time intensive, no detail too microscopic. A wheelset for which descriptors like "high end," "performance tuned" and "revolutionary" represent only the starting point. A wheel built to standards most riders view as simply mind-bogglingly stratospheric. But to the truly elite, that rare individual for whom 1 millionth of an inch is meaningful measurement, you get it. You know this is your wheelset. And you know anything less is compromise.

You're in good company. Both team CSC and Phonak rode the advance prototypes of the '07 ZEDTECH wheels at the Tour de France. And to our great pleasure they were simply stunned by the performance. And you're next.

To the hub of the matter While all Zipp wheels benefit from no less than 4 patents covering the gamut of aerodynamic performance, handling and durability, ZEDTECH wheels utilize an additional patent in that the hubs are dimpled to match the rims. This painstaking extra work yields yet another 1-2 precious watts of power from your wheelset – moving you that much closer to your absolute highest potential.

Ceramic bearings Excess or excellence? You decide Zipp's standard steel bearings are already 2.5 times rounder than the industry standard. But when Olympic medals and Grand Tours are on the line, when fractions of a second decide podiums, a bearing that's 1,000 times more spherical than any steel bearing ever created is no longer a "gee-whiz" item – it's as essential as breathing. That's why we give you the option of upgrading your ZEDTECH wheels with bearings of the most advanced material man has ever made: Silicon Nitride (Si3N4) Ceramic. The numbers are, frankly, staggering. 30% lighter than steel and 40% stronger, spherical variances of LESS than 2 millionths of an inch among the entire 6 bearing set, perfectly balanced even up to 300,000 rpm, and containing a ceramic specific grease more costly than any previously seen on a bicycle. And the benefit to you? A 0.8-1 watt energy savings at 25 mph. over the ultra-precision bearings in the standard Zipp hub, or a 1.8-2.2 watt savings over the next finest non-Zipp hub. And on an 8% grade a 1 watt reduction in friction is equivalent to a static weight of 340 grams. Your climb to athletic excellence just got that much easier.

Fanatical? Over the Top? No, simply what you'd expect from the most driven minds in the cycling world.

ZIPP**ZEDTECH**CUSTOM WHEELS

Make it your own From the hub out you begin building your ZEDTECH's to be yours and yours alone – optimized for your specific needs and riding conditions.

Standard ZEDTECH Options:
- Smoke grey anodized dimpled hubs
- Silver/Black dimpled hubs on ZEDTECH9 and ZEDTECH99
- Your choice of tubular or clincher
- Your choice of ZEDTECH 3, 4, 6, 8, 9, or 99
- Custom lightweight spoking pattern for more equalized spoke tension, reduced weight, and better aerodynamics
- Four different logo color options
- Titanium Quick Releases

And this is only the beginning. The true beauty of ZEDTECH is the opportunity to customize and tailor the absolute best in wheel technology and craftsmanship with options that further increase performance, reduce weight, separate you from the huddled masses at the start line. This is where ZEDTECH really takes off.

ZEDTECH Ultimate options:
- Silicon Nitride Ceramic six bearing upgrade – these are the real deal, the finest ceramic bearings in the world and as much as 10 times rounder than other ceramic bearings
- SL laminate structure shaves rim weight to the absolute minimum
- SS laminate builds in the greater strength power riders demand
- Semi-custom rear spoking to further enhance wheel stiffness… the choice of our ProTour sprint specialists
- Five nipple color options (red, silver, black, smoke, gold)
- ZEDTECH custom embroidered wheelbag... why let the best go unnoticed?

ZEDTECH 3

ZEDTECH 8

"Quality is never an

ZEDTECH 4

ZEDTECH 99

accident; it is always the result of intelligent effort. ”

– John Ruskin

ZIPP**CSC**WHEELS

28 Fierce competitors Hundreds of tough conditions One amazing wheelset Within the stellar racing careers of Team CSC riders, there's an astounding number of individual experiences. All of them were brought to bear on the creation of one ethereal wheelset that takes all the punishment of training and racing at the world elite level: Zipp's Team CSC wheel, a spectacular high-performance aluminum clincher is equally well-suited to cutting through the pack as slashing time from the records. We spent over two years developing this beauty, building in the team's preferences and ideas, and testing rigorously in every circumstance by the team members themselves. Here it is: the versatile, durable CSC that gracefully handles monumental demands and mileages.

Light, strong and responsive from the inside out If you saw the reams of engineering documentation relating to the hubset alone, you'd wonder if we'd gone completely loco (on the other hand, if you're like us – and we think you are – you can dig through some of it yourself at www.zipp.com/technology/tabid/60/default.aspx) Team CSCs are built around the famed Zipp flanged 108/208 hubset, a chronograph-precise cycling instrument. We use Swiss-made ball bearing cartridges – in fact, we're the only company in the world to do so, and we go even further by working with one family-owned Swiss bearing manufacturer that meets our precise specs. To give the strongest hubshells at the lowest possible weight, we've employed our proprietary SHIFT technology. Bottom line is, you get the finest bearings ever introduced into the world of cycling. Hubsets are laced 2x/2x for a just-right feel: excellent lateral and torsional stiffness, yet nice and comfortable. We lace them with the very best and super-strong DT Aerolite spokes on our CSCs to get the lightness of a 14/16 with the aerodynamics of a 16-gauge ovalized spoke.

Custom designed right to the rim Again, thank goodness for the Swiss, whose almost frightening penchant for precision brings us the perfection we demand in Zipp rims. In the hands of our technological partner in Switzerland, CSC rims are as beautiful as fine jewelry, with the mathematically astonishing roundness and perfectly machined brake surfaces. Another nice refinement: single wall eyelets, which save you 25 grams over traditional eyelets, but still deliver the strength to protect against stress fractures and spoke creaking. The final touch is a Zipp exclusive brake wear indicator system machined right into the brake track sidewalls.

This wheelset is specifically designed to either log thousands of training miles or provide you the flexibility of road racing at a moments notice.

“An idea is salvation by imagination.”

ZIPP**202**WHEELS

Straight to the top It's likely that the first time you saw 202s it was from behind as they zipped up a hill in front of you. This near-levitation ability is owed to their unique Carbon Fiber Tubular Rims with a super-slim 25mm profile, which combine the best of VCLC technology with our very own refinements to Inversion Composite Technology. We also have to credit the Zipp hubs with bearings so keenly precise that every bit of your energy goes into the task of shredding the competition. With our proprietary resin formulation and construction methods developed just for the demands of lightweight climbing specialist, we've been able to reduce the number of spokes and their weight) without sacrificing strength. Accelerates and climbs like a fighter jet, lasers through cross winds, and descends just as shockingly fast.

– Frank Lloyd Wright

ZIPP**303**WHEELS

303 Clincher

303 Cyclocross

303 Pavé

303 Light as air, goes like the wind If you're one of those folks who just love to make headway on the uphill climb, this is the wheelset for you. For on and out-of-the-saddle climbers and speed demons on varied terrain, 303's advanced carbon rim technology means you get the very best of lightness, durability and comfort. Completely redesigned to include Zipp's patented dimpling technology, further rim aero shape refinement and a depth of 44 mm, Zipp engineers have taken one of the best performing wheelsets in the family and improved on it even more. Nice stiffness and stability, yet surprisingly vibration-free for such a lightweight wheel. Snappy on the incline, brilliant on the decline, and quick on curves, the 303 in tubular and clincher will no doubt be winning hearts and races worldwide.

303 Cyclocross/Pave' Turns out that World and National Cyclocross champions discovered the Zipp 303 long ago and have taken numerous titles on them. If you are into Pave' or cyclocross and are a muddy glutton for punishment – we have a 303 fortified to take the kind of abuse you're into, without giving up one bit of performance. The 303 Cross has double-strength full carbon rims, and stiff traditional flange hubs, double bearing seals and a full dose of comfort. The 2007 303 Pave' rims are reinforced strategically for the merciless pounding of Belgium's Spring Classics. Overall speed and maintenance of momentum on the top of the cobbles combined with Zipp's VCLC technology for shock absorption and an all-new shape for 2007 ensured that Team CSC were the only Professional cycling team to race the Tour of Flanders on carbon wheels.

"Ability is what you're capable
Attitude determines how well

303 Tubular

of doing. Motivation determines what you do.
you do it. ” – Lou Holtz

ZIPP**404**WHEELS

404 The ruler of the free world Even with all the recent refinements and additions to the Zipp product line, the 404 wheelset is still the Champ! This versatile wheelset has reigned supreme in World Ironman Championships, numerous CSC and Phonak Tour de France stage victories, and countless personal bests all over the world in every cycling discipline. Don't let those good looks fool you – the patent pending aerodynamically dimpled pattern is an extremely ruthless controller of air resistance that delivers an average gain of 1 to 4 watts of energy in nearly all conditions and races. Triathlon, road racing, sprinting, time trials – you name it, the 404 is the universal master that has earned its place as our top performer and the choice of elite cyclists everywhere.

404 Track We understand the subtle and important nuances of track competition and have developed a dimpled rim with a track specific laminate structure, ONLY for velodrome competition. A quick wheel on the track has to be stiff and very predictable when changing direction. Designed for the higher frequency/lower amplitude surface imperfections of a velodrome, the custom rim ensures that your tires stay planted as the dimpled rim will do exactly as asked. The 404 Track is so versatile it is used in competition against the clock, sprints and mass start track events.

404 Cyclocross/Pave' Long before we ever developed our first cyclocross specific wheelset, the 404 was already winning world titles. The 58mm deep cross section allows mud to clear the rim quickly and efficiently, while the strategic laminate ensures comfort and durability far beyond expectation. The 404 Cross has double-strength full carbon rims, and stiff traditional flange hubs, double bearing seals and a full dose of comfort.
The 2007 404 Pave' rims are reinforced strategically for the merciless pounding of The Spring Classics. Overall speed and maintenance of momentum on the top of the cobbles combined with Zipp's VCLC technology for shock absorption ensured that Team CSC were the only Professional cycling team to race the Tour of Flanders on carbon wheels with greater comfort, unmatched aerodynamic performance, and excellent durability.

404 Pavé

404 Clincher

404 Tubular

404 Track Clincher

404 Track Tubular

404 Cyclocross

343 Tubular

ZIPP**343**WHEELS

343 Genetically Quick Sharing the design theory first seen in the 606, the new 343 now bridges the gap. Capitalizing on the superb aerodynamics of the 58mm deep rear found in 404's and the nimble handling of the 44mm deep front found in the 303, the 343 represents an excellent combination of aerodynamics and quickness. This wheelset offers an alternative for intimidating conditions like the Spring Classics with almost no compromise.

343 Clincher

606 Tubular

ZIPP**606**WHEELS

606 Power and finesse Designed for speed and all round performance, 606 has already built a reputation for demonic speed in triathlons and time trials. A natural-born triathlon speed machine, the 606 provides the absolute fastest combination possible for folks who are a little hesitant to ride a 82mm front wheel. Combining the proven predictability of Zipp's 58mm front wheel with the unsurpassed aero performance of the 82mm rear wheel, the 606 accomplishes what no other wheelset can- a custom aero package with little compromise! Break away from the pack and reach your personal best – the 606 helps put in your fastest times ever.

606 Clincher

“ Achievement is largely the product of

808 Tubular

steadily raising one's levels of aspiration and expectation. ”

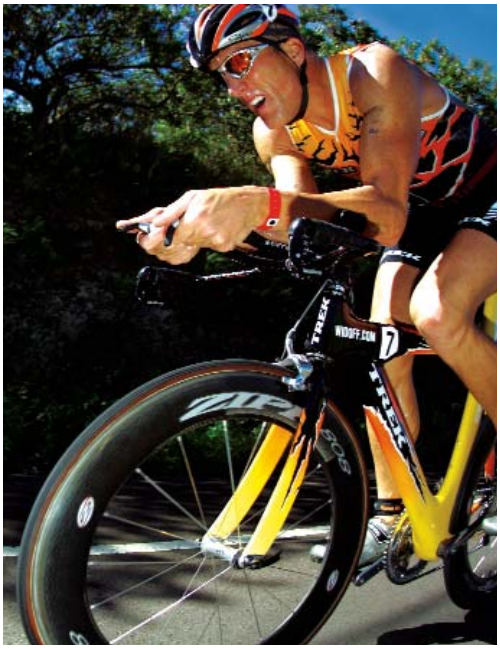
– Jack Nicklaus

ZIPP**808**WHEELS

808 Criminally fast, but legal Unequivocally the most aerodynamic non-disc wheelset available anywhere in the world and even faster than any three-spoke in all conditions, 808 is lethal and legal – in all triathlon and road race applications. An arsenal of technological tools awaits the serious triathlete and strikes fear into the heart of the competition. Peter Reid has scorched the Queen K with these beauties as David Zabriskie did in the Tour de France with the fastest Time Trial ever recorded. Thanks to a partially ovoid rim cross-section, and an 82mm rim patented dimpled surface, with Zipp's exclusive aerodynamic shape, you'll be at the finish line before the wind even knows you're out there.

New for 2007 is the 808 track wheelset, using completely new track hubs and maximizing the stiffness of the 82mm deep rim, these are built 20 spoke front and 24 spoke rear. Unsurpassed track performance!

Rapidly becoming the wheel of choice for time trialists, triathletes, and now trackies worldwide the 808 is winning over athletes at every level of competition. It's dominating speed has now been verified independently by one of the leading technical publications in Europe.



808 Clincher

808 Track

909 Tubular

ZIPP**909**WHEELS

909 A Perennial Performer For the past 5 seasons, the Zipp 909 has steadily got faster, losing weight, gaining dimples, lower rolling resistance, improved materials and it has been the absolute focal point of Zipp's aero arsenal. Equally at home on the Queen K, on the Kona coast, as well as the European TT courses, it has quickly established itself as the wheelset to have if you are serious. It is one of the fastest wheelsets you can own. Benefiting from more wind tunnel time and further refinement of Zipp's proprietary manufacturing methods it is still one of the most versatile and effective weapons for racing against the clock in triathlon, on the track and in Time Trials. Razor-like handling and super aero performance is now also available in clincher!

909 Clincher

999 Tubular

ZIPP**999**WHEELS

999 Uncompromising Performance Until July of 2005, the Zipp 909 held the record for the fastest ever Time Trial, achieved by Rik Verbrugge at the Giro d'Italia. For the past 6 years, this record has stood untouched by the best in the world. Until 2005 that is, David Zabriskie of Team CSC scorched the course in the first Stage of the 2005 Tour de France riding the fastest Time Trial ever on the Zipp 999 wheelset. How fitting that the 999 should break the 909's World Record? The 999 is an all speed, all performance, no compromise, go as fast as you are physically capable-kind of wheelset. It is the result of literally a life-time of effort, chasing seconds and fractions of seconds, always looking for an edge just a little further out of reach, never being totally content with our achievements, always hungry for more. It has already proven to be the fastest wheelset in the World. It will take you to speeds you never knew you had in you. If you are serious about tears-in-the-corner of your eye kind of speed, you are our kind of cyclist, and the 999 is the wheelset you have been waiting for.

999 Clincher

900 Tubular

“ To give anything less than your best is to sacrifice

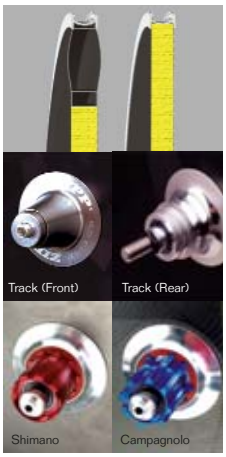
ZIPP**900**DISCS

900 Clincher

900 Faster and Faster The Zipp tubular disc is simply the lightest, most aerodynamically efficient wheel of its kind. The tubular disc was the original product built by Zipp way back in 1988 and it was at that time the lightest and fastest disc wheel available. Since that time it has been re-invented numerous times, each iteration getting lighter, faster and more aerodynamic. The latest round of technical innovations have taken a further 90g out of a wheel that is already one of the lightest and fastest in the business. At just over 860g for a 700c cassette hubbed disc, the days of being concerned about weight are long since over. This disc is generally lighter than most aluminum rimmed "climbing" wheels and the low perimeter mass means it accelerates very rapidly and maintains speed with ease. The Zipp hub system allows any disc to be either Shimano or Campagnolo compatible, or either of them can be converted with a track axle kit for competition on the velodrome. The ultimate in adaptability.

Consider, a frontal area of only 19mm, patent pending ABLC dimpled surface technology combined with light weight and unsurpassed lateral stiffness result in a wheel that is without equal.

900 Clincher Disc Advanced aero performance, with the convenience of clincher tires After significant R&D, this is the first clincher tire disc wheel to take into account the specific needs and limitations of clincher tires and the necessary rim geometry required to properly blend the airflow behind the tire. Historically, clincher discs have used an aluminum rim post-bonded to the outside of a flat or lenticular disc wheel, this approach leads to a strong and easily manufactured disc wheel, but can cause significant turbulence in the airflow when the disc is in the 'sweet spot' of wind angles between 10 and 20 degrees of yaw (See technology spread for full explanation). The other limitation of traditional designs is the necessity of using a rim that is not welded so that the rim can be spread apart and post-bonded onto a pre-cured disc body.



In order to address all of these problems, the design team at Zipp has worked for over 2 years on rim shapes, tooling, and manufacturing techniques that would allow us to use a welded rim, maintain attached airflow coming off of the tire, and integrate our proprietary M2CM co-molding technology that eliminates post-bonding of aluminum to carbon. The result is the revolutionary Clincher disc, a wheel which combines the patented Zipp bulge rim shape with ABLC (Aerodynamic Boundary Layer Control) dimpled surfaces to create the world's fastest clincher disc. This revolutionary combination of technologies allow for a carbon fiber over Nomex honeycomb core to the wheel and a hollow structure at the perimeter edge of the wheel, reducing the rotational inertia of the wheel while also allowing for increased ride comfort due to compliance in the sidewalls of the rim. Incorporating Zipp's VCLC technology for the first time in a disc, this disc reduces road vibration by up to 11% while damping high frequency vibrations.

The Zipp Clincher disc is aerodynamically optimized for tires between 19 and 23mm wide, and requires no rim tape.

the gift. ” – Steve Prefontaine

PowerTap System

808 / 404 / 303 PowerTap

ZIPP**POWER TAP**WHEELS

PowerTap Measured performance The PowerTap hub has quickly established itself as "the" power metering system to own if you are serious about your capabilities and ultimate performance, particularly in 2007, as the system is now wireless! Physiology meets science, providing you with a clear blueprint to success. Purchased and used by numerous National Teams around the world and ridden every day in the Tour de France by Team Phonak, the amazingly advanced PowerTap technology continues to enjoy support by cyclists and triathletes every day who value the information this system can produce. Cadence, heart rate, speed, power and numerous data combinations thereof are easily viewed on the fully programmable easily mounted Pro Pack. The SL hub is a svelte 416g, (whole lot of technology in there), this means power metering is no longer a training only option. At Zipp we realize its just as important that you collect your race data in order to more scientifically train and so we offer the PowerTap SL hub in numerous wheel combinations. Each PowerTap wheel is custom built by Zipp, the Pro Pack is optional. All you should have to do is a very simple installation and go riding! **Wireless PowerTap will be available for 2007.**

650C 404 Tubular

650C 840 Disc

650C 909 Tubular

404 Clydesdale

606 Clydesdale

808 Clydesdale

909 Clydesdale

ZIPP**CLYDESDALE**WHEELS

Clydesdale Stiff and fast At Zipp, we know that larger riders demand more of their equipment. For this reason, we created our Team Clydesdale range of wheelsets. Higher spoke counts, stiffer rims and high flange hubs make our 404, 808, 606 and 909 wheelsets stand up to the additional stresses generated by larger riders. The 606 is completely new for 2007, but the 404, 808, and 909 have been further refined to include the all new 208/108 hubs, facilitating even greater torsional stiffness (See hub page). No longer do you have to be saddled with slow, heavy wheels. We understand what you need, take a look at Zipp's Clydesdale wheels and blow the competition away.

650C 404 Clincher

ZIPP**650C**WHEELS

650c Small but very quick Over the years 650c wheels have enjoyed varied amounts of support dependent largely on how bicycle frames are designed and built. We believe that high performance 650c wheels have a definite place in the market particularly for smaller athletes who simply cannot get comfortable on a 700c equipped bike. 650c wheels are smaller in diameter and frontal area than 700c wheels and as a result are more aerodynamic. Additionally spoke lengths are shorter creating less turbulence at similar speeds. These attributes on a small frame with a small cyclist on board combine to be an extremely fast package. Despite the fact that most manufacturers have discontinued 650c wheels, we remain committed. All Zipp's carbon 650c wheels are smooth sided, and are built with the same 2007 spec hubs and CX-Ray spokes as their larger brethren, capitalizing on every gram of weight reduction we have eliminated.
If 650c is your choice for performance, we can help.

“ Imagination is more important than knowledge... ”

– Albert Einstein

ZIPPHUBS

Zipp 182 and 82 straight pull hubs An incredibly fast science lesson How do you create the lightest, highest precision, fastest hubset available in the world? First you give up sleep, then you dig into every book you can find on metallurgy, call up every friend you know in the aerospace world and pull in a few favors from medical industry. From there, things really start rolling

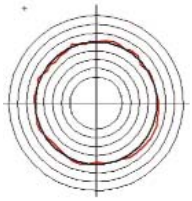
The good doctor You'll feel it the first time you stomp the pedals. Instant engagement. Wicked acceleration. That's because at the heart of our rear hub is a ratchet ring and pawls that have been cut by wire EDM to the tightest tolerances ever used in a bicycle component. It's the same technology used to cut spinal implants, avionics components and Formula1 Gears from some of the hardest metals known to man. This technology allows us to design components that are nearly twice as hard and more than 20 times more dimensionally accurate than post-hardened machined parts (See your friendly neighborhood metallurgist for an explanation of why other machined hub gears and pawls warp during post heat treating). The results of wire EDM are pretty amazing: our ratchet ring is round to within 0.0001" compared to 0.006" on competing designs, and nearly twice as hard. This added roundness means all three pawls engage instantly and simultaneously, equally dispersing their loads into the ratchet without distorting or deflecting the axle or other hub components. As one of our riders put it, "It's like kicking in the afterburners."

Phynox It really is rocket science While our hub engagement is instantaneously reassuring, the sound of our hub's freewheeling is almost unnervingly silent. But it's for a good reason. A revolutionary spring material known as Phynox, previously used only in aircraft and missile guidance systems allows for a much thinner spring with a lighter action that reduces the resistance of the hub while freewheeling by nearly 80% – and reduces freewheeling noise by nearly 75%. And don't worry about the durability of that Phynox spring. Phynox actually has a higher strength rating and better wear and corrosion resistance than almost any other spring steel, making it essentially immune to aging. Our drive system and Phynox spring have surpassed freewheeling tests equivalent to 400 miles of coasting at an average speed of over 400mph without failure, while also withstanding torque loading in excess of 250 ft.lbs (more torque than most passenger sedans can generate). You need never fear a descent, climb, or sprint.

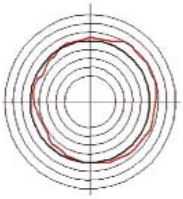
The Hubshell 5 Axis drilling for perfect spoke alignment You'll notice our hubshell looks like nothing else in the industry because we saw a chance to innovate. The 52mm drive side flange diameter (a full 10% larger than even our previous radical design) allows us to use thinner, lighter flange ears while also building up a wheel that is not only laterally stiffer, but torsionally stiffer as well due to more tangential spoke angles. Another industry first is the use of 5 axis milling and drilling of the flange ears, this means that not only are the holes drilled at an angle relative to the hubshell, they're also drilled at angles relative to the plane of the wheel. This allows us to angle the spokes so that they exit the flange with exactly the right angle to make a cross with another spoke, keeping the forces perfectly linear throughout the entire system after the wheel is built. What does 5-axis milling really mean? Try a 6% increase in wheel stiffness while reducing hub weight by nearly 20 grams.

One more small point of pride Our meticulous attention to detail has resulted in a carbon fiber dust-cap held in place by an ingenious retaining clip. Each dustcap is handmade and is the perfect finish to our beautifully machined hubs. While the clip is injection molded in carbon filled plastic and weighs only 0.5 grams, yet can withstand more than 200 lbs without displacing.

Zipp - Home of the 2 and-a-half times rounder bearing 1 watt = 2-3 seconds over 40 K. The difference between career-defining victory and just another finish. Which explains why cyclist and triathletes are so obsessed with watts. Which explains our bearing obsession. We knew there was a watt waiting to be saved. That watt kept us awake pouring over reams of friction-study data "borrowed" from our defense industry and auto racing contacts, made us pull every string and favor we had stored up with our Swiss bearing supplier to secure the only guaranteed supply of 10-millionth of an inch tolerance steel bearings in the cycling industry. 10 millionths of an inch? Imperceptible to anything but the most laboratory grade measuring equipment, as the illustration below shows, it makes a serious difference in bearing when measured with a laser, and makes just as much difference on the road – Zipp bearings are a full 2.5 times rounder than the rest of the rest of the industry, and even rounder than most of our competitors ceramic bearing options. Combine that with our industry first teflon-impregnated retainer, and perfect radial contact hub flange design (as much as a 41% reduction in bearing load over standard cup and cone designs), we've just squeezed one more precious watt of efficiency from your racing machine. What you win with that watt is completely up to you.



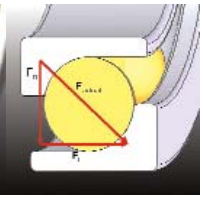
10 Millionths of an Inch Runout



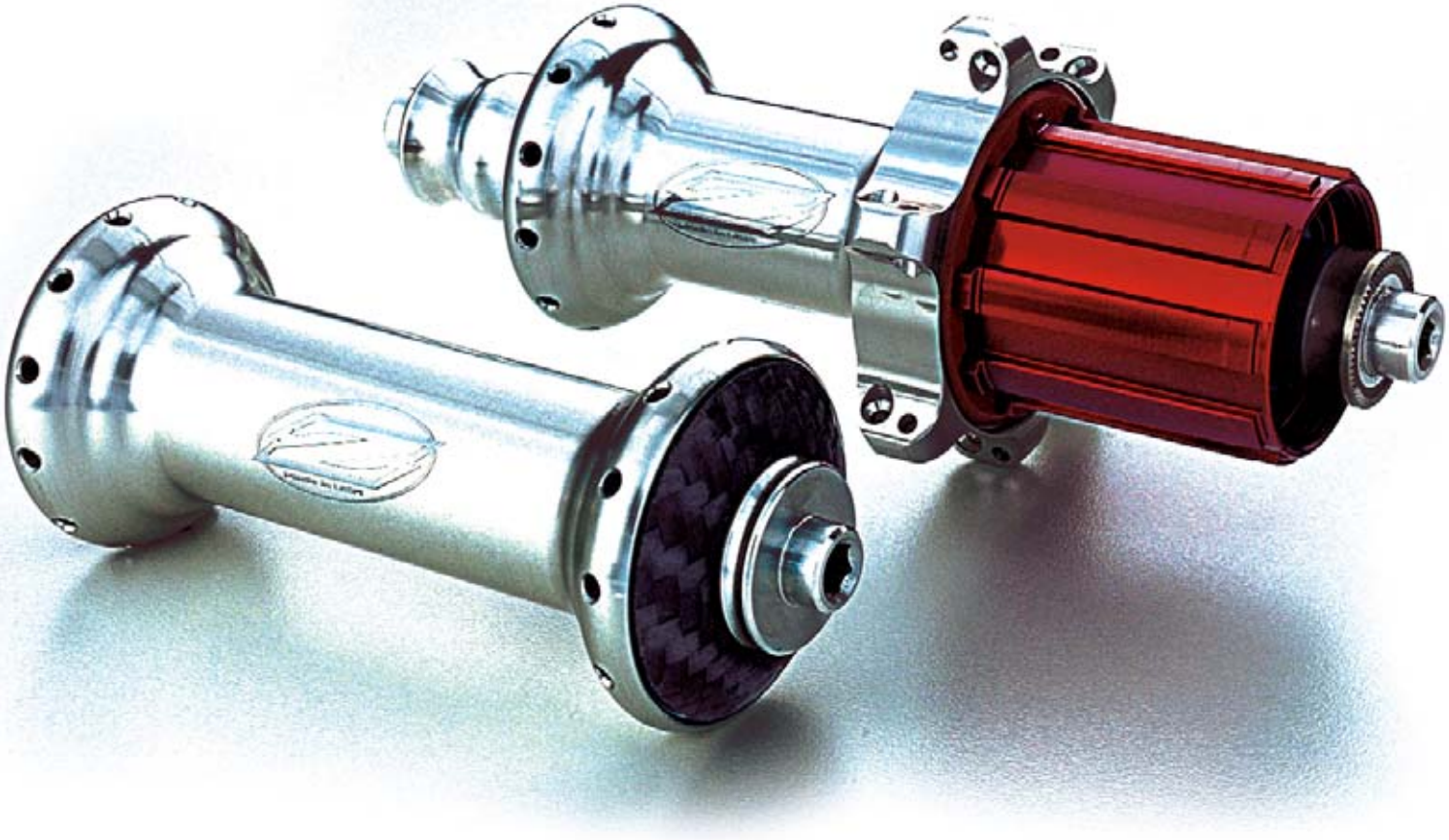
20 Millionths of an Inch Runout

Zipp Cartridge Cutaway View Showing Teflon Retainer

Radial Ball Bearing



45 Degree Angular Contact (Cup and Cone) Bearing



Road Axle Kit

ZIPP**HUBS**

Zipp 208/108 Flanged hubs Nothing traditional about them
Our flanged hubs are designed for use with lower profile rims, or more traditional wheel builds into aluminum wheelsets when weight and performance are absolutely your most critical requirements. But that's the last time we'll use "traditional" in reference to these hubs. Because we use the same groundbreaking wire EDM cut ratchet ring and pawls as well as the same ultra-precision 10 millionths ball bearings as the 182/82 hubset. And, because nothing is sacred in our pursuit of performance, we dispense with the traditional 38 or 44mm hub flange and use an oversized 69mm/47mm flange pairing.

A little Hi, a little Lo – a whole lot more stiffness This Hi/Lo flange geometry along with a canted drive flange means the 208 rear hub builds into a wheel that's significantly stiffer, both laterally and torsionally, than any wheel built using traditional 44mm flange hubs. What's more, the larger bracing angle of the drive side spokes also minimize the dishing effects of 10 speed systems, while the non-drive flange is precisely shaped and located to take up to 10% higher spoke tensions when compared with traditional designs – the quest for even spoken tension on a 10 speed wheel is complete. Even better, the non-drive flange geometry is fully optimized for radial lacing, which is a practice we highly recommend (unlike other manufacturers we have absolutely no warranty stipulations against radial lacing on ANY of our hubs, in fact we encourage it!).

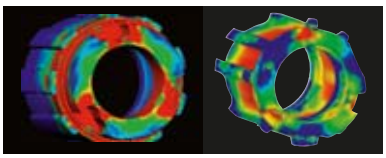
30% stronger, 50% more fatigue resistant The 208 Rear hub uses proprietary Alcoa Z310.9 alloy. It combines the strength of 7075-T6 with the toughness and fatigue resistance of 2024-T4, allowing for further weight removal from all components of the hub without sacrificing strength or durability. In fact, the Z310.9 alloy combined with Zipp's Spoke Hole Impact Forming (SHIFT) technology (see below) results in a hub with flanges that are nearly 30% stronger and more than 50% more fatigue resistant than any other hubset on the market - and at a significantly lower weight.

Up front The 108 Front hub uses the same 47mm diameter flange geometry used in the non-drive flange of the rear hub, and a slightly wider than normal flange spacing of 70mm to build the stiffest and most durable front wheels possible. Our continuous wind tunnel testing program has shown that flange width has significantly less effect on total wheel aerodynamics than spoke count, so we have engineered the 108 front hub to build the stiffest and strongest wheels possible, meaning that lower spoke counts and radial lacing can be incorporated without sacrificing stiffness or durability

SHIFT Explained Traditional hub flanges are chamfered for spoke hole heads by removing material with a drill tip. SHIFT formed holes are actually forged into the hub flanges so less material is removed and the local material grain structure is perfectly aligned to handle spoke stress. As a "fun fact" SHIFT technology has been used on aircraft skins for nearly 20 years now, but is still so costly it's only used on the highly loaded under sides of the wings and wing box.

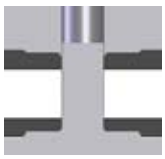
Track Hubs Zipp Track hubs are without doubt the most thoroughly engineered track hubset ever. Each hub utilizes a massive 69mm diameter flange locating the spoke heads on a 60mm diameter hole circle (traditionally this is 47mm) enabling wheels to be built laterally and torsionally stiffer than any other. Furthermore, the revolutionary Spoke Hole Impact Forming Technology developed by Zipp is the same technology used to coin the rivet holes in aircraft wings. Spoke holes are over 30% stronger than drilled holes and hole fatigue properties more than doubled. The result is a hub that can be laced radial, one, two, three, or four cross. While most hub manufacturers void their warranty if you radial lace hubs, we encourage it.

To make sure that your power continues to be transmitted effectively, we use the finest ball bearings running in sets matched to 10 millionths of an inch separated by a Teflon ball retainer which is lighter and generates less friction, with non-contact shields instead of seals ensuring that the bearings have ABSOLUTELY NO SEAL DRAG.
(Available as Front 20, 28, 32 hole, Rear 24, 28, 32 hole)



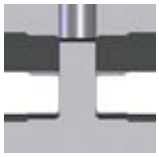
2004 Cassette Body Design at 100ft.lbs Torque; 2007Cassette Body Design at 100 ft.lbs Torque shows nearly 30% lower stress in pawl pockets

A chamfer bit removes material from the hub flange, this is how spoke holes have traditionally been made.

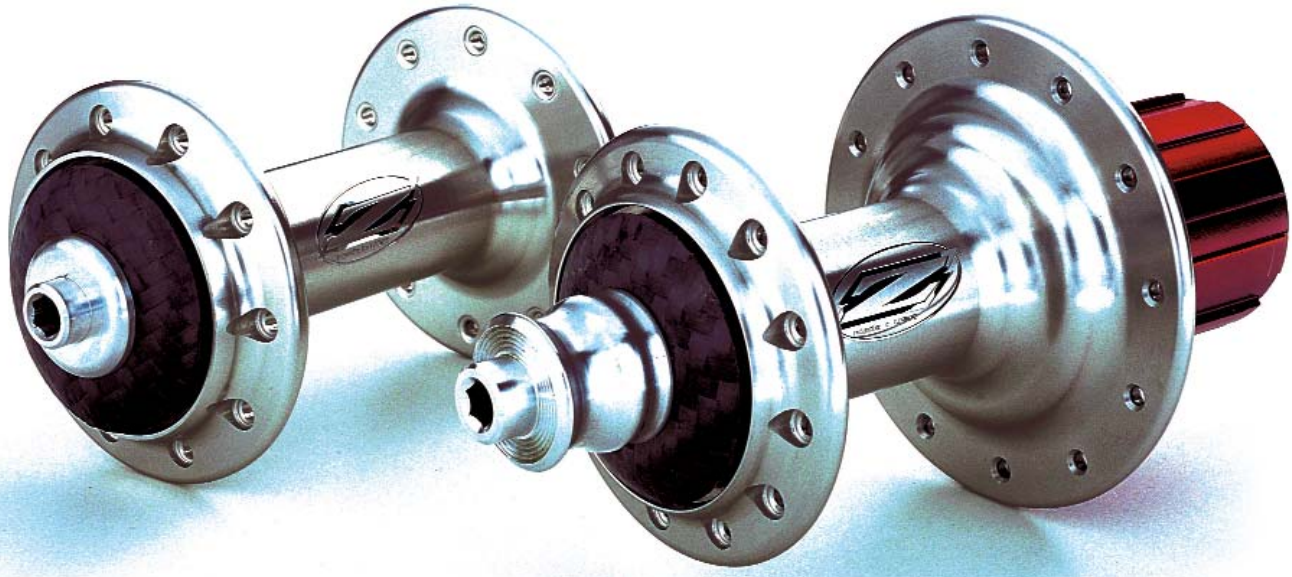


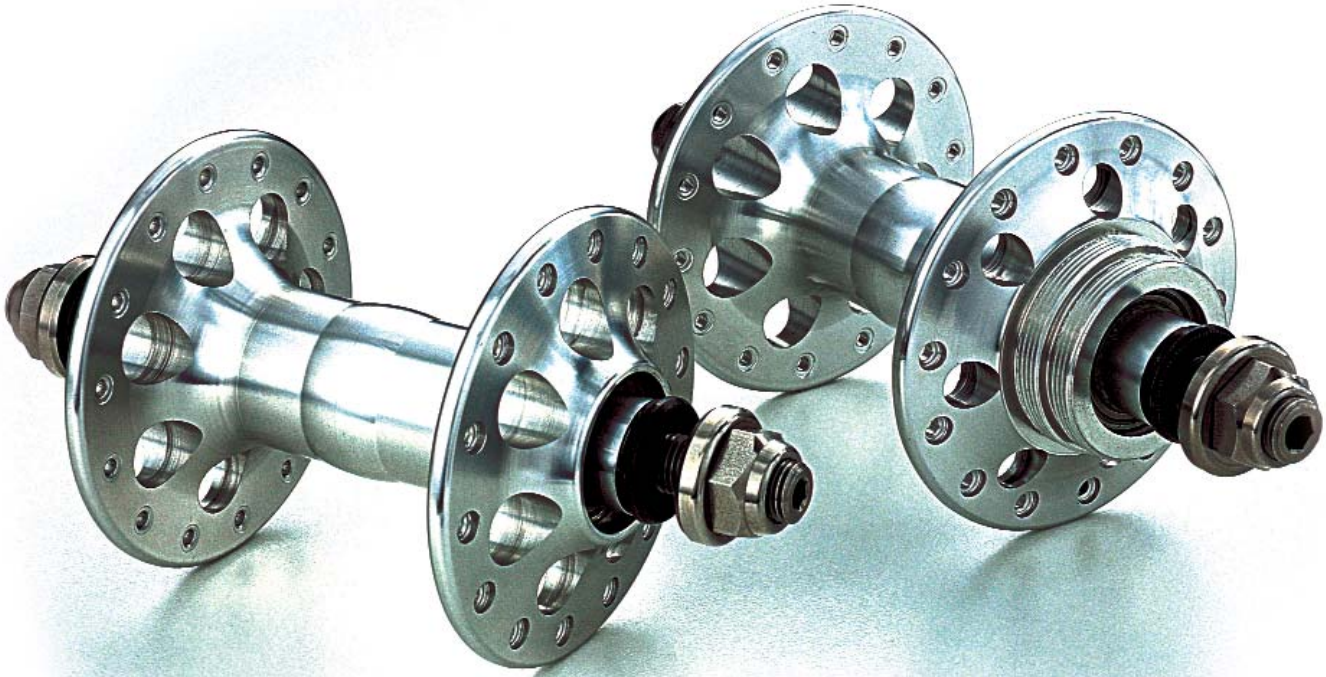
The SHIFT tooling is placed into a single spoke hole in preparation for forging

The SHIFT dies impact the flange at nearly 125,000 PSI forming the chamfer geometry and densifying the aluminum around the hole



The SHIFT dies are removed from the flange revealing the forged in geometry around the spoke hole.





250	417	285	505	360	520	420
Smooth Sided Carbon Fiber Tubular Rim	Dimpled Carbon Fiber Clincher Rim	Dimpled Carbon Fiber Tubular Rim	Dimpled Carbon Fiber Clincher Rim	Dimpled Carbon Fiber Tubular Rim	Dimpled Carbon Fiber Clincher Rim	Dimpled Carbon Fiber Tubular Rim

250 Carbon Fiber Tubular Rims Capitalizing on VCLC technology and further refining Inversion Composite Technology (ICT) has produced the lightest competition rims in the world. The 250 is a 25mm deep, featherweight that rockets up hills with blinding acceleration and is perfect in criteriums. Wet or dry braking performance is enhanced with a Zipp exclusive Silica-Ceramic braking surface and Zipp brake pads.

285 Dimpled Carbon Fiber Tubular Rims The 285 is an all new rim. At 44mm deep and an even more aero shape, finished off with Zipp's patented dimple technology, the 285 quickly becomes a favorite of professional teams and road racers worldwide. Designed for all-round performance, they are ideal for criteriums, climbing, road racing and pave with extra laminates

360 Dimpled Carbon Fiber Tubular Rims These rims have formed the wheel technology base that has not only provided the impetus for additional rim models but have themselves gone through numerous iterations and improvements. These multi patented 58mm deep rims are rapidly becoming the choice of multisport and road racing athletes worldwide due to their uncompromising performance and exceptional acceleration and stiffness characteristics. Their light weight, combined with Silica-Ceramic braking surface, provide a rim that is built to perform in every application. Also available in a stronger and stiffer version, the 360 pave-cross rim has a unique carbon laminate to be more impact resistant and is stiffer for rough roads and the rigors of cyclocross.

360 Dimpled 360 Track Carbon Fiber Tubular Rims These multi-patented 58mm deep rims are now becoming the performance choice of track racing athletes worldwide due to their uncompromising performance and exceptional acceleration characteristics. The 360 Track rim is custom laminated and molded for track applications. With a lower inertia and additional lateral stiffness, this rim has no braking surface and is made specifically for every track racer looking for the ultimate performance advantage.

420 Dimpled Carbon Fiber Tubular Rims The basis for the new 808 wheelset, the 420 rim is the most aerodynamic rim ever made. This rim's combination of aerodynamics and light weight add up to the fastest rim ever. At 82mm, these dimpled demons sport a revised Zipp exclusive oval rim cross section. We have taken this one step further with the addition of canted silica-ceramic braking surface for the ultimate in drag-reduction.

All Zipp clincher rims are designed to work their best below 125 psi tire pressure. Pressures above 125 psi (8.5 bars) can actually increase rolling resistance.

417 Dimpled Carbon Fiber and Alloy Clincher Rims The 417 is a unique combination of Zipp technologies delivering high performance clincher rims that quite simply have no equal. The 417 is 44mm deep, has an aero profile and it has also received Zipp's patented dimpling technology. These are by far the lightest carbon/aluminum composite Mid-V clincher rims in the world, over 100 grams lighter than all equivalent depth alloy rims. A structural carbon rim section is melded with Zipp's proprietary sub 200g welded alloy rim in an exclusive and patented process delivering a unique combination of clincher versatility and the advantages of high performance carbon rims with a perfectly parallel, machined braking surface.

505 Dimpled Carbon Fiber and Alloy Clincher Rims Zipp's M2CM technology has demanded refinement and continual development since the day we made the first rim. The end result is a lightweight, high performance composite wheel with the ease and convenience of clincher tires. Complimented by a precision machined and parallel braking surface, complete with wear indicators.

520 Dimpled Carbon Fiber and Alloy Clincher Rims The clincher version of the rims used in Zipp's incredibly fast 808 wheelset, the 520 offers the best aerodynamics ever poured into a non-disc rim. The 520 is 82mm deep and dimpled with a parallel Aluminum braking surface to bring you to a stop just as fast as we brought you up to speed.

330 Carbon Fiber 650c Tubular Rims The 58mm deep 330 is a smooth sided tubular rim in 650c and can be built with any compatible hubset for custom applications. Due to their small diameter they are light and fast.

460 Carbon Fiber and Alloy Clincher rims The 58mm deep 460 is a smooth sided clincher rim in 650c and is available in numerous drill patterns for custom build applications.

Brake Blocks For the sake of wheelset longevity, rider safety and ultimate stopping performance, Zipp highly recommends the use of Zipp Carbon/Carbon brake pads for all Zipp rims and wheelsets. Zipp pads are engineered for optimal performance and rim longevity under all (including extreme) conditions with both Silica-Ceramic and Aluminum braking surfaces. The Zipp pad also adds a further dimension of safety to your riding–as one of only a handful of pads not containing abrasives, it minimizes the possibility for heat-flatting under extreme conditions with aluminum rims, while prolonging the life of aluminum rim brake tracks. Zipp Carbon/Carbon pad will increase the performance and longevity of any high performance wheel whether aluminum or carbon.

ZIPP**TANGENTE**TIRES

Tangente Dimpled Tires With more than 15 years of wind tunnel testing and rim design under our belts, we have developed extensive lists of tire characteristics and aerodynamic performance. By noting trends in which tires work better than others we began designing our own, with careful attention placed on the tread roughness as well as tread to casing transition and overall tire width. We noticed that tires with a certain amount of tread seemed to be more aerodynamically efficient than either smooth or more heavily treaded tires, so in 2005 we began testing tire models with varying dimple patterns. What was developed is the Tangente line of tires, the first and only tires specifically designed in the wind tunnel for optimal aerodynamics when used with Zipp's patented rim shapes (and they tend to make other wheels more aero as well).

Working for more than 14 months with Vittoria, we developed advanced tread models and tooling as well as evaluated numerous rubber compounds and casing designs to find the perfect balance of low rolling resistance with durability and cornering grip. Early testing revealed very promising results as Computer Finite Element Analysis of the dimpled tread revealed significantly reduced stress within the tread over conventional tread designs for reduced stress cracking of the tread with age and use, as well as increased suppleness for reduced rolling resistance.

All of this design boils down to a 1-3 watt energy savings on the road when compared to some of the best tires available.

Available as both a 21mm tubular or 21mm clincher, all Tangente tires are handmade utilizing the finest 290 TPI Corespun casing materials and Silica based tread compounds. Another first from Zipp!

> "To invent, you need a good imagination and a pile of junk."
> – Thomas A. Edison

ZIPP**ACCESSORIES**

1 End Caps Sometimes you have to have fun…or just indulge yourself. Zipp carbon fiber end caps are the perfect finishing touch for your carbon handlebar, and will look great on any bar!

2 Handlebar Tape Handlebar tape w/ carbon bar end plugs. Custom embossed with the ever-stylish Zipp logo in classic Red or Black. Includes our exclusive carbon fiber insert bar end plugs. Your bars will thank you for it!

3 Water Bottle Some how things just seem cooler, more refreshing, when you use this logo bottle promoting your favorite wheel company, Zipp, of course!

4 Carbon Cage Not just functional, the Zipp Carbon Cage will hold your liquid refreshment in style. Custom tooled and re-engineered to ensure that bottles don't get "launched" when you hit a bump in the road. Works great with standard bottles. Only 25 grams.

5 Titanium Quick Releases Titanium Quick Releases are a great complement to your Zipps's or any wheelset. Weight is a feathery 85g for the set. 6.4 Titanium shafts with black anodized and laser etched levers look super and work great.

6 Valve Extensions Zipp Valve Extensions now come in four sizes for all your wheel needs. Includes a special interior 3mm hex broach to tighten. Regardless of the depth of your wheels, we have an extension that will solve your inflation challenges.

7 Carbon Headset Spacers Clear coated with a Red Zipp logo and precision ground to ensure parallelism, these spacers are available in 1.125 inch diameter and in heights of 4,8,12 and 30mm.

8 Track Nuts Supplied with every track hubset and track disc conversion kit, Zipp's stainless steel track nuts are also available as stand-alone items. Because the little things count, only the finest materials and processes have gone into making these track nuts the best available which have floating washers.

9 Campagnolo and Shimano Bodies Red for Shimano, Blue for Campagnolo and easily swapped. Change your wheels to whatever 10 speed or 9 speed configuration you need!

10 Track Lock Rings Standard equipment on Zipp track hubs and discs, these alloy track lock rings are cut to exacting ISO standards. A Zipp exclusive Alcoa 6XXX alloy ensures long lasting performance.

11 Rim Tape Finally, Zipp has the great clincher rim tape you have always wanted! It took a while to ensure a thin enough material so as to ensure durability as well as sufficient space in the tire well for tight fitting clincher tires. Very light, very strong, good looking and guaranteed not to let a spoke through! Sold in packages of two, just enough for a wheelset!

12 Track Front Skewer Maximizing your investment just got easier. With this Track Skewer you can legally race your front road wheel on the track. Very inexpensive way to get more race use from your carbon wheels.

13 Brake Blocks For the sake of wheelset longevity, rider safety and ultimate stopping performance, Zipp highly recommends the use of Zipp Carbon/Carbon brake pads for all Zipp rims and wheelsets. Zipp Carbon/Carbon pads are engineered for optimal performance and rim longevity under all (including extreme) conditions with both Silica-Ceramic and Aluminum braking surfaces. The Zipp pad also adds a further dimension of safety to your riding - as one of only a handful of pads not containing abrasives, it minimizes the possibility for heat-flatting under extreme conditions with aluminum rims, while prolonging the life of aluminum rim brake tracks. Zipp Carbon/Carbon pad will increase the performance and longevity of any high performance wheel whether aluminum or carbon.

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HANDLEBAR
TAPE
SYSTEM
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ZIPP**SOFTWEAR**

1 Dimple T-Shirts Show off your dimples with one of these special shirts! A very unique dimpled Zipp logo on front and back of these beauties. Comfortable 100% cotton T, and with those dimples, you will be aerodynamically correct! Available in Black, Grey and Orange. Medium-XX Large.

2 Zabriskie T-Shirt What do you do when you have the fastest Time Trial ever recorded in The Tour? Celebrate it with a new T-Shirt! Printed big on the back and small on the front with the winning times and Zipp logo, it says it all!

3 Bib Shorts Bib Shorts are completely redesigned for 07. Eight panel Bibs with the finest quality Cytech pad imported from Italy. This is a no-compromise garment that will allow you to put in those long rides in relative comfort. Printed with the Zipp Logo in Small-XXX Large

4 Cycling Jersey Our Jersey is the basis for a truly stylish kit: Completely redesigned for 07. It could make you faster just by putting it on! Available in Small-XXX Large.

5 Shorts Also new for 07, eight panel shorts, complete with top of the line Cytech pad from Italy for ultimate comfort on any length ride and sporting your new Zipp gear, you will look and feel good. Sizes are Med-XX Large

6 Socks Tickle your tootsies with Zipp's new socks. Made by SockGuy, they are thin and comfortable on or off the bike. Available in Small and Large sizes.

7 Caps Hide your embarrassing "helmet hair" with one of these two fine chapeaus. Available in Black or Yellow in sizes to fit almost everyone.

8 Friends T-Shirt No need to ride alone, with this clear message on your back you will collect fellow riders along the way. Pocket print on front and large print on back.

9 Sweater We got 'em now you can get one too. "Old School" Zipp wool trainers jersey in no-scratch Merino 2-ply wool. Beautiful quality and comfort, perfect for staying warm on a chilly evening. Limited Availability in Medium-XXX Large.

10 Banners Zipp Banners come in Large and Small. Large size measures 72"x18", and Small measures 36"x9". Great for any workshop!

11 Gear Bag Made of the same high grade materials as our successful wheel bag, the Zipp Gear Bag carries all your "must have stuff". Inside the bag are three body pouches, each with a zipper for those essential small and medium items and an additional zipped pouch in the lid. There is even a separate side-in pocket for your ID and little stuff, and special place to attach your keys. Underneath is a large space to store a wetsuit or dirty clothes, while shoes fit easily in the side pockets. The Zipp Gear Bag can be carried by the shoulder straps or handles. Riding a bike – no problems, you can carry the bag on your back using the hidden back pack straps. As a special value we include the Zipp Transition Towel that absorbs up to 8 times its weight in moisture without dripping. If you need to carry it, do it in the Zipp Gear Bag, balance your wheel bag with this handy counter-weight.

12 Wheel Bag The sturdy and stylish Two Wheel Zipp bag! Featuring two separate wheel compartments, with strategic hub pockets for both wheels. You can now transport your wheels with confidence. Also featuring special compartments for quick releases, small parts, pump pocket and even your ID inside the bag. Transport it with either a shoulder harness or the padded hand strap.

13 Surfer T-Shirts Surfs up! A nice relaxing Surf and Tri Club shirt to show off your favorite non-racing activity. Even if you don't surf, you'll love that the Woody carries your bike and wheels in style! Medium-XX Large sizes.

14 Decal Sheet Full page Zipp decal sheet kit! Includes 24 stickers in a variety of sizes. Now you can place your favorite logo where ever you want!

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Wheels	Rim Used	Rear A= Aerodynamic Rim Width B= Brake Track Width D=Rim Depth	Front A= Aerodynamic Rim Width B= Brake Track Width D=Rim Depth	Weight 650	Weight 700	Shimano 9/10	Campy 9/10	Powertap	Track adaptable	Spoke count 650	Spoke count 700	Spoke Pattern	Ceramic Bearing	Dimpled Surface	VCLC	M2CM	Maximum Tire Pressure
CSC Wheels	CSC Clincher	A=N/A B=19.3 D=21.2	SAME AS REAR		F-700g R-780g	-	-				F-28 R-32	F - 3x R - 3x	Available as Upgrade				125 PSI
202 Tubular (700c)	250	A=N/A B=21.00 D=24.85	SAME AS REAR		F-466g R-566g	-	-	-			F-20 R-24	F - 2x R - 2x	Available as Upgrade		-		
303 Tubular (700c)	285	A=22.35 B=20.50 D=44.00	SAME AS REAR		F-477g R-645g	-	-	-			F-20 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-		
303 Clincher (700c)	417	A=21.50 B=19.00 D=44.15	SAME AS REAR		F-744g R-843g	-	-	-			F-20 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-	-	125 PSI
303 Pave Cross Tubular	285 pave	A=22.35 B=20.50 D=44.00	SAME AS REAR		F-602g R-688g	-	-				F-28 R-28	F - 2x R - 2x		-	-		
343 Tubular (700c)	285 front 360 rear	A=22.50 B=20.50 D=58.00	A=22.35 B=20.50 D=44.00		F-477g R-682g	-	-	-			F-20 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-		
343 Clincher (700c)	417 front 505 rear	A=22.50 B=19.00 D=58.00	A=21.50 B=19.00 D=44.15		F-744g R-884g	-	-	-			F-20 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-	-	125 PSI
404 Tubular (700c)	360	A=22.50 B=20.50 D=58.00	SAME AS REAR		F-570g R-682g	-	-	-			F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-		
404 Clincher (700c)	505	A=22.50 B=19.00 D=58.00	SAME AS REAR		F-711g R-884g	-	-	-			F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-	-	125 PSI
404 Tubular (650c)	330	A=22.50 B=20.50 D=58.00	SAME AS REAR	F-539g R-679g		-	-			F-18 R-24		F - Radial R - 2x D Radial ND	Available as Upgrade		-		
404 Clincher (650c)	460	A=22.50 B=19.00 D=58.00	SAME AS REAR	F-711g R-846g		-	-			F-18 R-24		F - Radial R - 2x D Radial ND	Available as Upgrade		-	-	125 PSI
404 Clydesdale Tubular	360 pave	A=22.50 B=20.50 D=58.00	SAME AS REAR		F-622g R-729g	-	-	-			F-24 R-28	F - Radial R - 2x	Available as Upgrade	-	-		
404 Clydesdale Clincher	505	A=22.50 B=19.00 D=58.00	SAME AS REAR		F-813g R-922g	-	-	-			F-24 R-28	F - Radial R - 2x	Available as Upgrade	-	-	-	125 PSI
404 Pave Cross Tubular	360 pave	A=22.50 B=20.50 D=58.00	SAME AS REAR		F-679g R-751g	-	-				F-28 R-28	F - 2x R - 2x		-	-		
404 Track Tubular	360 Track	A=22.50 B=20.50 D=58.00	SAME AS REAR		F-828g R-902g				-		F-28 R-28	F - Radial R - 2x		-	-		
606 Tubular	360 front 420 rear	A=26.25 B=21.25 D=81.00	A=22.50 B=20.50 D=58.00		F-570g R-735g	-	-	-			F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-		
606 Clincher	505 front 520 rear	A=24.00 B=19.00 D=81.25	A=22.50 B=19.00 D=58.00		F-711g R-997g	-	-	-			F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-	-	125 PSI
606 Clydesdale Tubular	360 front 420 rear	A=26.25 B=21.25 D=81.00	A=22.50 B=20.50 D=58.00		F-622g R-820g	-	-	-			F-24 R-24	F - Radial R - 2x	Available as Upgrade	-	-		
606 Clydesdale Clincher	505 front 520 rear	A=24.00 B=19.00 D=81.25	A=22.50 B=19.00 D=58.00		F-813g R-1057g	-	-	-			F-24 R-24	F - Radial R - 2x	Available as Upgrade	-	-	-	125 PSI
808 Tubular (700c)	420	A=26.25 B=21.25 D=81.00	SAME AS REAR		F-685g R-735g	-	-	-	Front only		F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-		
808 Clincher (700c)	520	A=24.00 B=19.00 D=81.25	SAME AS REAR		F-818g R-997g	-	-	-	Front only		F-18 R-24	F - Radial R - 2x D Radial ND	Available as Upgrade	-	-	-	125 PSI
808 Clydesdale Tubular	420	A=26.25 B=21.25 D=81.00	SAME AS REAR		F-738g R-820g	-	-	-	Front only		F-20 R-24	F - Radial R - 2x	Available as Upgrade	-	-		
808 Clydesdale Clincher	520	A=26.25 B=21.25 D=81.00	SAME AS REAR		F-928g R-1057g	-	-	-	Front only		F-20 R-24	F - Radial R - 2x	Available as Upgrade	-	-	-	125 PSI
808 Track Tubular	420 Track	A=26.25 B=21.25 D=81.00	SAME AS REAR		F-854g R-950g				-		F-20 R-24	F - Radial R - 2x		-	-		
840 Tubular (650c)		DISC		865g		-	-		-				Available as Upgrade	-	-		
900 Tubular		DISC			892g	-	-		-				Available as Upgrade	-	-		
900 Clincher		DISC			1191g	-	-		-				Available as Upgrade	-	-	-	125 PSI
909 Tubular	360	DISC	A=22.50 B=20.50 D=58.00	F-539g R-862g	F-570g R-892g	-	-		-	F-18	F-18	F - Radial	Available as Upgrade	-	-		
909 Clincher	505	DISC	A=22.50 B=19.00 D=58.00		F-711g R-1191g	-	-		-		F-18	F - Radial	Available as Upgrade	-	-	-	125 PSI
999 Tubular	420	DISC	A=26.25 B=21.25 D=81.00		F-685g R-892g	-	-		-		F-18	F - Radial	Available as Upgrade	-	-		
999 Clincher	520	DISC	A=24.00 B=19.00 D=81.25		F-818g R-1191g	-	-		-		F-18	F - Radial	Available as Upgrade	-	-	-	125 PSI

ZED TECH	Rim Type (Tubular)	Rim Type (Clincher)	Rear	Front	Weight 700 (Tubular)	Weight 700 (Clincher)	Shimano 9/10 or Campy 9/10	Spoke Count	Spoke Pattern	Ceramic Bearing Option	Dimpled Hub	Dimpled Surface	VCLC	M2CM (Clincher only)	Options on ZEDTECH wheels
ZED 3	285 Z	417 Z	A=20.75 B= 20.50 D=38.00	Same as rear	F-450g R-540g	F-744g R-843g	•	F-18 R-24	F Radial R 2x D Radial ND	•	•	•	•	•	**Five Nipple Colors
ZED 4	360 Z	505 Z	A=22.50 B=20.50 D=58.0	Same as rear	F-570g R-600g	F-788g R-884g	•	F-18 R-18/24	F- Radial R-2x D Radial ND	•	•	•	•	•	Silica Ceramic Bearings
ZED 6	360 Z Front 420 Z Rear	505 Z Front 520 Z Rear	A=26.75 B=21.75 D=81.0	A=22.50 B=20.50 D=58.0	F-570g R-740g	F-788g R-997g	•	F-18 R-18/24	F Radial R 2x D Radial ND	•	•	•	•	•	SL Laminate
ZED 8	420 Z	520 Z	A=26.75 B=21.75 D=81.00	Same as rear	F-630g R-740g	F-818g R-997g	•	F-18 R-18/24	F Radial R 2x D Radial ND	•	•	•	•	•	SS Laminate
ZED 9	360 Z Front 900 Z Disc Rear	505 Z Front 900 Z Disc Rear	Disc (Tubular or Clincher)	A=22.50 B=20.50 D=58.00	F-570g R-890g	F-788g R-1191g	•	F-18	F- Radial	•	•	•	•	•	Spoke Count Customization
ZED 99	420 Z Front 900 Z Disc Rear	520 Z Front 900 Z Disc Rear	Disc (Tubular or Clincher)	A=26.75 B=21.75 D=81.00	F-630g R-890g	F-818g R-1191g	•	F-18	F-Radial	•	•	•	•	•	Custom Embroidered Wheelbag

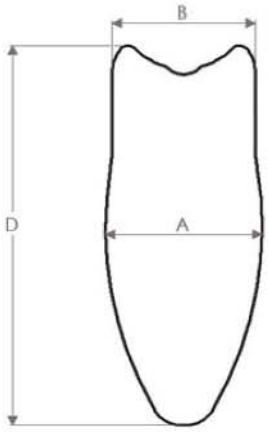
*125 psi max on clincher wheels

**Silver, Gold, Black, Red, Smoke

Hubs	As Used In	Weight	Front	Rear	Shimano	Campy	Cross-System Compatability	Alcoa 7xxx Alloy Shell	Z310.9 Alloy Shell	Alcoa 7xxx Axle	Rolled 18/8 Stainless Axle	Alcoa 7xxx Alloy Freehub Body	Hole Counts
82	303-404-808 888-909-999	82g	•					No	Yes	Yes	No		18, 20
182	303 404 808 888 909 999	184g		•	Yes	Yes	Yes	No	Yes	Yes	No	Yes	24
108	202 303 cross 404 cross 808 clyde 404 clyde	108g	•					No	Yes	Yes	No		20, 28, 32
208	202-303 cross 404 cross-808 clyde-404 clyde	208g		•	Yes	Yes	Yes	No	Yes	Yes	No	Yes	24, 28, 32
T-2 Front Track Hub	404 Track	301g	•					No	Yes	No	Yes		20, 28, 32
T-2 Rear Track Hub	404 Track	403g		•				No	Yes	No	Yes		24, 28, 32

Rims	Effective Rim Diameter	Utilized In	Average Weight	650	700	Dimpled Surface	Hole Count	VCLC	ICT	M2CM	Maximum Tire Pressure
250 Tubular	596mm	202 700c Tubular	262g		•	No	20, 24, 28, 32	Yes	Yes	No	
285 Tubular	569mm	303 700c Tubular	290g		•	Yes	18, 20, 24, 28, 32	Yes	Yes	No	
285 Pave Tubular	569mm	303 700c Pave/cross	320g		•	Yes	18, 20, 24, 28, 32	Yes	Yes	No	
330 Tubular	484mm	404 650c Tubular	352g	•		Yes	16, 18, 20, 24, 28	Yes	Yes	No	
360 Tubular	530mm	404, 909 700c Tubular	392g		•	Yes	16, 18, 20, 24, 28, 32	Yes	Yes	No	
360 Pave Tubular	530mm	404 Pave/cross, 404 Clydesdale 700c Tubular	408g		•	Yes	16, 18, 20, 24, 28, 32	Yes	Yes	No	
360 Track Tubular	530mm	404 700c Track	428g		•	Yes	16, 18, 20, 24, 28, 32	Yes	Yes	No	
420 Tubular	484mm	808, 999, 700c Tubular	460g		•	Yes	16, 18, 20, 24, 28	Yes	Yes	No	
417 Clincher	567mm	303 700c Clincher	450g		•	Yes	18, 20, 24, 28, 32	Yes	Yes	Yes	125 PSI
460 Clincher	477mm	404 650 Clincher	505g	•		Yes	16, 18, 20, 24, 28	Yes	Yes	Yes	125 PSI
505 Clincher	529mm	404 700c Clincher	606g		•	Yes	16, 18, 20,24, 28, 32	Yes	Yes	Yes	125 PSI
520 Clincher	477mm	808, 999 Clincher	670g		•	Yes	16, 18, 20, 24, 28	Yes	Yes	Yes	125 PSI

Cross Section Legend



A = Aerodynamic Rim Width
B = Brake Track Width
D = Rim Depth

Bars & Stems	Weight	Sizes Available (c-c)	Color	VCLC	Comments
26.0 Contour Bar	42cm (213g) 44cm (216g) 46cm (217g)	42, 44, 46	Clearcoat over carbon	Yes	Flat top bar with double grooves for Campy & Shimano
26.0 Stems	140g (120mm)	110, 120mm	Clearcoat over carbon	Yes	Aluminum faceplate with 4 tt bolts
31.8 Contour Bar	216g (42cm) 218g (44cm) 221g (46cm)	42, 44, 46cm (outside to outside)	Clearcoat over carbon	Yes	Flat top bar with double grooves for Campy & Shimano
31.8 Stems	150g (120mm)	90, 110, 120, 130mm	Clearcoat over carbon	Yes	Aluminum faceplate with 4 tt bolts
31.8 SL Bar	168g (40cm) 170g (42cm) 172g (44cm) 174g (46cm)	40, 42, 44, 46	Clearcoat over carbon	Yes	Superlight round bar double groved for Campy & Shimano
31.8 SLC2 Bar	195g (40cm) 198g (42cm) 200g (44cm) 203g (46cm)	40, 42, 44, 46	Clearcoat over carbon	Yes	Clip-on compatiable carbon bar, double grooved for Campy & Shimano
Vuka Clip-on Extension	390g	Yes	Clearcoat over carbon	Yes	Clip-on with adjustable collet system 26.0 & 31.8mm compatiable
Vuka Aero	860g	42	Clearcoat over carbon	Yes	Lightest complete aerobar system, highly adjustable with hidden cable routing

Cranks & Bottom Brackets	Available Lengths	Total Assembled Weight	Bottom Bracket Width	Bottom Bracket Thread	Chain Rings	Crank Bottom Bracket Interface	Bearing Type
Cranks	170, 172.5, 175	450g	108		53-39	ISIS	
Bottom Brackets		180g	108	Italian (70) English (68)		ISIS	Double row German SKF overstred bearing

Zipp Speed Weaponry 1180 N. Main Street, Speedway, IN 46224-6942 800.472.3972 www.zipp.com

Photos: Tim DeWaele, Joe Vondersaar, Bill Vance, Tim Moxey, Mike Hone, Jay Prasuhn