

# INDEPENDENT

### Welcome.

You have entered sacred ground. This is the birthplace of dreams. Within these hallowed walls your desire and our expertise come together, resulting in more than just a bicycle. Our mission is to fuel your passion for cycling through the wickedly personalized IF experience.

Over weeks, months, and years of riding many different bicycles, a cyclist will begin to understand the effect of different frame materials and geometry on the handling characteristics of their bikes. It is from this knowledge and experience that the desire for something greater is born. This is where the IF custom process begins.

To begin the custom process, first locate your nearest IF authorized dealer (see our dealer locator online). Our authorized dealers are adept at fitting and coaching you through this process. At our website (www.ifbikes.com) you will find a downloadable Custom Fit Form which you, your dealer, and IF will use to help create your custom bicycle.

Next, take the time to fill out the forms with your dealer and answer all of the questions as accurately as possible. We will then come up with a preliminary design and submit it to your dealer for you both to review and discuss. Look over all of the options and confirm each one with your dealer, mistakes can be costly in both time and money, so be thorough. If there is a need to make any adjustments or changes this is the time. If all goes well, and the design is approved, it will be added to our production schedule.

Please remember, the clock officially starts ticking once you and your dealer provide the final finish details (color and decals) and the design paperwork is signed off and faxed or emailed back to IF.

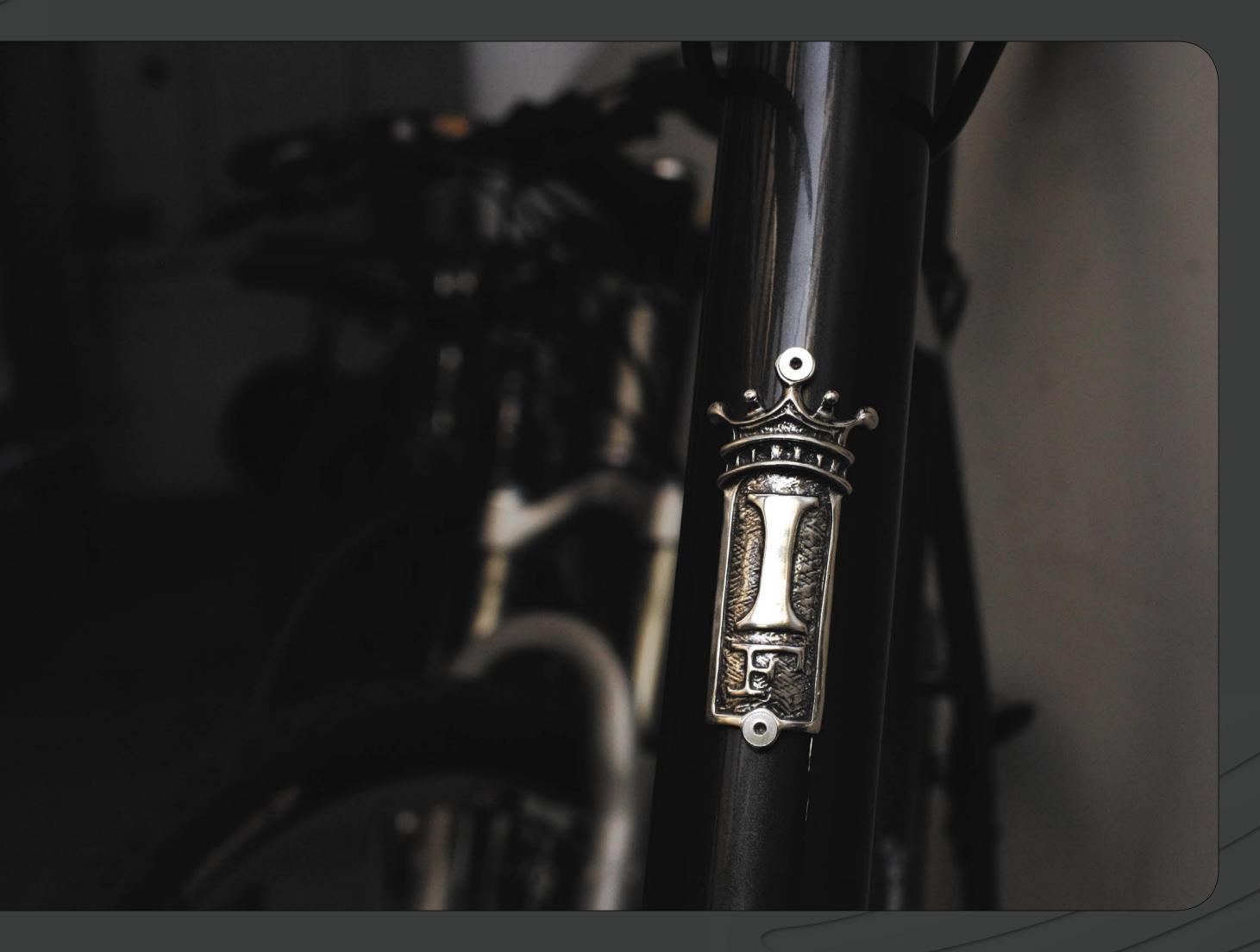






www.ifbikes.com

www.ifrider.com



# DESIGNERS AND BUILDERS At Independent Fabrication, we do it all.

Our experienced design team takes your provided body measurements, fitting information, ride expectations, and aesthetic concerns and turns them into a bicycle design. They utilize their years of design experience to translate all of the provided information into angles, tube diameters, wall thicknesses, and butt lengths. Our designers create a blueprint and work order for your bicycle that is referenced throughout the process of building and finishing your frame.

We have been working, since our inception, to create a process that lends itself to the infinite variations of tubing, materials, and options. This process continues to evolve as bicycle and material technology advances. Our extensive database of every possible option grows daily and is put to use in the bikes that we design and build.

From initial design to painted frame, your bike will pass through each of our talented framebuilder's hands. We treat every frame with the utmost respect as it passes through each department. At each step we check and recheck the details to make sure that each bike conforms to our strict tolerances for straightness, accuracy, and surface finish.



#### The XS. The ultimate blend.

Winner of Bicycling Magazine's "Best Dream Road Bike" for 2005 and 2006 and "Best Track Bike" at the 2007 NAHBS. The XS is a blend of two of the most exotic, technologically advanced and challenging materials in the cycling industry: titanium and carbon fiber. We combine the classic styling of lugs with modern fabrication techniques and materials, resulting in a true masterpiece of design and performance. This model incorporates a titanium drivetrain and lugset paired with carbon fiber mainstay tubes and a carbon fiber monostay. All of these materials are tuned for an individual cyclist to make the XS a ride that exceeds expectations.

### MACHINING & TACKING

This is where the building begins. After the tubes are selected they are cleaned extensively, measured, and cut slightly longer than the length of the finished mitered tubes. The build sheet is used to set up the jigs on the machines so that everything is cut at the correct angle and length. We have different machines for different processes. The use of dedicated tooling makes our machinists extremely efficient so that their work is executed accurately. Most of the tooling and jigs are also extremely adjustable, making for quick changeovers between different sizes and types of tubing.

After all of the tubes are cut, the tacking jig is set up based on the geometry provided by our design team. The tubes are then deburred, cleaned again, and set into the jig. The frame jig is then grounded to the welder and small "tacks" of metal are welded to the frame, just enough to hold the tubes together. If a titanium, stainless or Factory Lightweight frame is in the jig, the inside of the frame is flooded with an inert gas called argon. The argon displaces the oxygen, nitrogen, and other gasses that exist in the air around us. These other gasses could potentially damage the frames integrity. This creates the ultimate environment for a perfect tack weld.

All of this attention to detail, cleanliness, and accuracy results in a frame that is straighter, stronger and better fitting.

At this point the frame's serial number is rolled into the bottom of the bottom bracket shell. The frame is then fully inspected, signed-off and sent to the welding department



#### The Titanium Crown Jewel. Light, fast, and strong.

The Ti Crown Jewel is a very versatile and tunable frameset from a frame builder's perspective. The sheer amount and variety of different tubing that we have at our disposal creates the opportunity for us to thoroughly dial in all aspects of ride quality and fit requirements for the rider. Now, with the additional option of a Reynolds carbon fiber monostay, we can fine tune the feel of the ride even further. The Ti Crown Jewel is the first titanium bicycle ever to receive the shotpeened surface treatment, boosting its fatigue life twofold.





#### The SSR. A new era in materials technology.

The SSR is the pinnacle of the modern steel bicycle. The SSR frame is made out of Reynolds 953, a martinsitic age-hardenable stainless steel. This super metal has an ultimate yield strength of 2000 MPa. For comparison, 3Al-2.5V titanium has ultimate yield strength of 900 MPa. This builds a stiff and super light frame that retains the liveliness and feel of high quality steel but that is highly dent and corrosion resistant.

# FINAL MACHINING Brazing and final machining take place in the Finishing Department. The frame is essentially ridable when it is completed at this stage, but without its surface treatment, thusly we call it the Finishing Department. When the frame is received in this department it is visually inspected and referenced to its corresponding work order. Final machining involves many procedures. First, the frame alignment is checked. The bottom bracket threads are chased and the outer rim is faced to the proper dimension. The seat tube is reamed to its final dimension and then slotted. The headtube is reamed and faced to perfectly fit a headset, and the headbadge holes are drilled and tapped. After this point, titanium frames are sent to be shotpeened at an aerospace shotpeening facility, and SSR frames are hand polished.



#### The Factory Lightweight. An exercise in minimalism.

This frameset is an exercise in pushing the limits of modern steel. Every aspect of this frame has been dialed in to maximize its potential. It may be the lightest frameset we make, depending on the rider specific tubeset and geometry. It incorporates the newest steel technologies from the most innovative tube manufacturers in the industry. The tubing is so thin on this model that we purge the inside of the frame, through a series of drilled holes, to assure the highest quality welds. This frameset represents the best in steel tubing as it becomes available.



### BRAZING

Only steel frames get their small parts brazed on, titanium frames have all of their cable stops and small parts welded on in the Welding Department. The brazing process begins by selecting all of the appropriate parts and cleaning them. The frame is then set up in the brazing area and cleaned as well. Then the areas that will be receiving the small parts are coated with a flux. Flux acts as a vehicle for the metal to flow through as well as an oxide and contaminate preventative, very much like the argon purge used in welding. For an added measure of purity assurance we use a Gas Fluxer. It is installed in the gas lines between the Acetylene tank and torch. This device adds flux to the gas, further deterring contamination.

We use two different brazing metals for the different parts applications. Low stress areas, such as cable stops and pump pegs, receive a silver alloy and highly stressed areas, such as brake bridges, receive a brass alloy. We have various custom jigs that hold parts in their correct locations during the brazing process. When the brazing is complete and the frame has cooled down it is dipped in a mild acidic solution that removes the flux.

After the frame has dried it is fully inspected and sent on to the Painting Department.







# The Crown Jewel. The real feel of steel.

The Crown Jewel comes as a steel frame and steel fork. The Crown Jewel SE comes with a Reynolds carbon fiber fork and a sterling silver headbadge. We use a blend of Reynolds 853 and True Temper OX Platinum that we have drawn and butted custom to our specifications. The weight and strength of these framesets rival those of titanium and carbon fiber and the ride quality of steel is still the benchmark to which all other materials are gauged. The huge variety of tubing available makes these frames the most highly customizable of any of our models.

These frames feature a fully sealed toptube, downtube, seatstays, and chainstays. This feature adds to the longevity of the frame by keeping water out. For added security the seat tube is coated with a rust inhibitor, just in case water finds its way in through the seat post.



### **PAINTING**

When our PPG-certified Painting Department receives the frame it fully inspects it, confirms all of the details, and prepares the frame for paint. Steel frames are set up to be sandblasted by masking off critical threads, machined surfaces, and any purge holes. As the frames are blasted they are again inspected for any irregularities on the surface. Sandblasting cleans the surface of the frame and provides a microscopic "tooth" that the primer mechanically bonds to. After blasting the frame it is then ready for primer.

The primer acts as a bonding and rust inhibiting layer, its proper application is the foundation of a long lasting paintjob. After the primer cures, it is wet-sanded by hand, dried off, and certain areas are masked off. The colors are then mixed and the frame is ready to be painted.

After the color is applied and it has cured, the decals are applied. These are special low profile decals that are designed specifically for use underneath the final clear coat. The frame again goes into the paint booth and two to three layers of clear coat are applied three to five minutes apart. This is the final surface that is applied to a painted frame. After the frame is cleared it cures for 24 hours and is again fully inspected for any defects. Upon passing inspection the frame is passed on to Final Assembly and Quality Control.







## The Deluxe. The Ultimate Hardtail.

The Deluxe (in titanium above or steel below) is the result of many years of refinement and experience. Its genes date back to the beginning of New England mountain biking and has evolved to become the king of custom hardtails. Its versatile platform can be manipulated to accept 26" or 29" wheels (or a combination of both) and can be built as a singlespeed with options for "V" brakes, disc brakes, an Eccentric Bottom Bracket (EBB), or the new Slider Dropouts. Each frame is built as a frameset, designed specifically for the build height and offset of a specific fork (rigid or suspension), guaranteeing ideal handling characteristics.

The steel Deluxe is endowed with a robust tubeset designed to take the abuse of life on the trail. The tubeset is a combination of Reynolds 853 and True Temper OX Platinum. We have the tubing custom drawn in a plethora of wall thicknesses, diameters, and butt lengths.

The titanium Deluxe is made out of an oversized 3Al/2.5V titanium tubeset. This tubing is cut and butted into a wide range if dimensions. The finished frame is shotpeened and then either decaled or painted. The titanium deluxe comes with a sterling silver headbadge.

Every frame we build has a tubeset that is unique to its owner's specific needs and requirements.



### SHOTPEENING TITANIUM

We are the only company currently shotpeening titanium bicycle frames.

Shotpeening is a cold working process in which the frame is bombarded with small spherical metal balls at a precise angle. These particles are called "shot." Shot acts like tiny ball peen hammers and create a uniform dimpled texture on the surface of the frame. This compacts the outer molecules of the titanium.

The processes of butting and welding titanium tubes create tensile stresses in the frame material. Tensile stresses can lead to premature frame failure. The induced tensile stresses are most concentrated in the heat affected zone, around the welds. Thus, strength is compromised precisely where you would like it to be greatest.

The shotpeening process imparts what is called residual compressive stress. This counteracts the tensile stress created in the processes of cutting and welding. Typically, fatigue strength of a welded titanium joint after shotpeening is double that without shotpeening, and fatigue life is enhanced to an even greater degree.

The shotpeening process also stress relieves the frame. Stress relieving allows the component tubes of the frame to work together as designed, acting as a unified structure rather than a collection of competing parts. Shotpeening also work hardens the surface of the tube and gives it a finely dimpled surface. This texture glitters in the sun like a pearl paintjob and is highly scratch resistant.

We chose shotpeening as a surface treatment for our titanium frames because it improves the performance characteristics of the finished frames. This technology was borrowed from the aerospace industry, and is also used in high performance cars and motorcycles, where lightweight and high strength are performance imperatives.









# The Planet Cross. A thoroughbred racer.

The Planet Cross is full-on cyclocross racing machine. Its riders have graced the podium more times than we can count, and with its constant updates, it continues to propel our racers to the front of the pack. It has geometry and features that are specific to the requirements of the brutal races that it competes in. It has added chainstay clearance for rapid evacuation of mud, a tall bottom bracket for clearing obstacles, ample room in the mainframe for portaging, and a front end that maximizes its handling characteristics. The fully custom Planet Cross is available in either titanium (above) or steel (below).





### QUALITY CONTROL

The last step before shipping involves the quality inspection of the frame. All aspects of the frame are scrutinized. The workorder, and initial order are referenced against the frame and all options are closely inspected. Using gages made by Accu-Gage and Thread, the bottom bracket threads, head tube ream and seat tube ream are checked to be sure that they are within the designated tolerance range. Then the paint is closely inspected and any imperfections are buffed out by hand.

### FINAL ASSEMBLY

The frame finally becomes complete when all of the small parts are put on it. All adjustment barrels, EBB bolts, brake studs, water bottle bolts, and pulleys, are assembled on the frame, and then, as a final touch, the headbadge is hand buffed and affixed to the headtube. The frame is finally done.

The completed frame is then invoiced and packaged for shipping to the bike shop where it will be built up and delivered to the end user.





# The Club Racer. Versatile Performance.

This frameset incorporates traditional road bike geometry coupled with all of the options for light touring. It is designed for use with long reach caliper brakes to accommodate fenders and slightly larger tires. It also includes front and rear rack mounts and a pump peg. The Club Racer makes an excellent commuter bike, rainy day trainer, or light touring rig. It is available in steel or titanium and with or without S&S couplings.





#### The Independence. Built for the long haul.

This is an expedition level, long distance, fully custom, touring specific frame and fork. The Independence is an extremely durable and timetested world traveler equipped with all of the necessary options to handle a fully loaded tour. The frameset features a heavy duty tubeset, three water bottle mounts, a full set of rack mounts and fender mounts (front and rear), and a pump peg. This frame is available in either steel or titanium, with or without S&S couplings, and comes with an IF steel touring fork.

### COLOR & DECAL CHOICES

Independent Fabrication is renowned for creating the best paint jobs in the industry. Our mission is to help you to understand what your choices are and how to go about realizing your dreams in color.

#### A. Basic Paint (level of difficulty: low)

We offer 24 stock paint colors that cover the range of popular basic colors, metallics, and pearls. You can choose any one of these colors and paint your new steel IF a solid color at no additional charge. Basic paint options for titanium in 2008; for \$225 MSRP you can paint your new titanium IF with a solid color, 3/4 paint job, or painted panels on the seat tube and down tube. If you still find yourself wanting more custom paint on our titanium frames please have your authorized IF dealer contact us for a quote.

B. Basic Paint with Custom Masking (level of difficulty: medium to high) You can have any number of things done with all the stock colors available for 2008. Examples are shown in detail on the current IF website (www.ifbikes.com) in the Custom Paint Gallery, or you can check out our IF owners website (www.ifrider.com) to see constantly updated new bike pictures from our customers. This includes flames, painted-in panels, team panels and many others. All of these things come at an extra cost due to the high level of detail and labor hours involved. Just like every other department, our P.P.G certified paint department is set up for custom work and is constantly looking at new ideas and processes to make your dreams

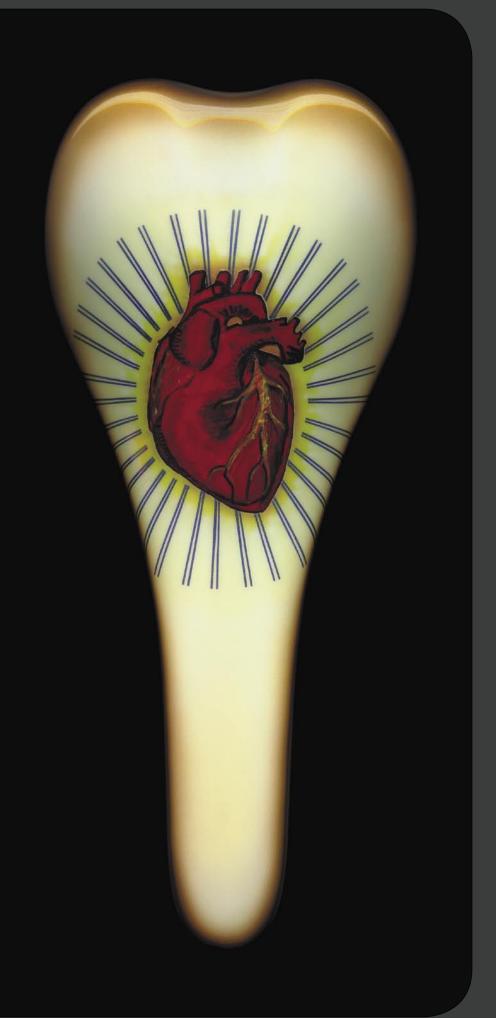
C. Custom Colors (level of difficulty: depends on type of paint and/or special application techniques)

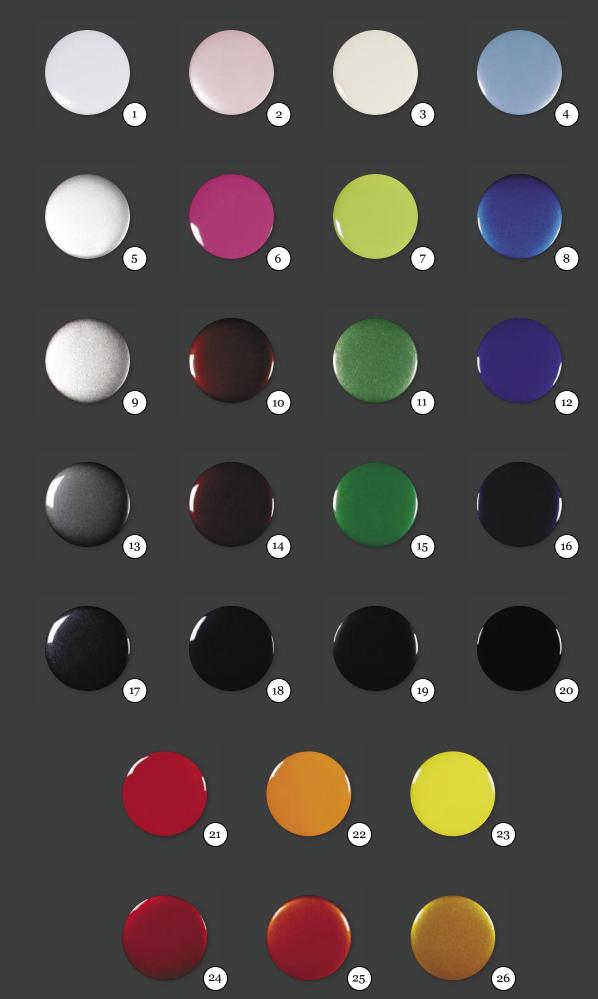
This is for those customers who know what they want but don't see that special color on our stock color list. Do you want to match your new frame to your car, or do you just want something unique? Whether you decide on colors we do not stock, candies, pearls, prizmatiques, tints added to the clear coat of your basic paint, or harlequins, which change color depending on the angle of the light, we've got your new frame covered. We may need to color match and/or special order the paint, but we can match, or come close to matching, almost anything. Warning: Some custom colors are extremely expensive (like up to \$4,500.00 per gallon for some harlequins); you've been warned.

#### D. Customs Colors & Custom Masking (level of difficulty: high)

Are you driven by the need to have it all? Many of these types of paint jobs require extensive paint room consultations and push the limits of just what two hands can do. If it can be done technically to perfection and you are the type of person who doesn't like to hear the word NO, we are ready to do it. Over the past years, we have painted many exotic paint schemes, some of which have out priced the cost of our frames. What drives the price of painting a frame to this level? It's all the extra hours of hand labor, creative consultation, and special paints that are sold by the ounce. Examples of these styles of paint jobs will slowly be added to our Custom Paint Gallery on our website throughout the year.

\*\*\* NOTE: The colors depicted in this catalog and on our website are not actual paint. We do our best to replicate these colors but real paint is real paint. Printed examples and images on a computer screen really do no justice and cannot be entirely accurate, no matter how hard we try. Please visit your local IF dealer to see actual paint and decal samples.





#### 2008 Stock Colors

- White (8001)
- Pale Pink Pearl (51596) (95/500)
- Vanilla Shake (90990)
- Baby Blue Pearl (12077) (95/500)
- Silver Metallic (36395)
- Hot Pink (51588)
- Lambo Green (48097)
- Intense Blue Pearl (5357)
- Platinum (4820)
- Iron Ore Metallic (27795)
- Lime Metallic (45732)
- Evening Blue (17039)
- Meteorite Silver Metallic (912044)
- Black Cherry Metallic (73922)
- Quetzal Green Metallic (47612) Midnight Blue Metallic (190691)
- Carbon Metallic (36208)
- Purple Pearl (51487)
- Emerald Green (47748)
- Gloss Black (9300)
- 21. Corsa Red (75250)
- Omaha Orange (60807)
- Bright Yellow (83033)

#### Special Colors (\$200 msrp)

- Candy Red (73399) (212/500)
- Candy Orange (25622) (61079)
- Candy Yellow (25622) (82623)

Traditional Downtube Decal (above) is available in all of the color combinations.

Special "Straight Edge No Boxes" and "Script" Downtube Decals (above) are available in white, silver, and black.



#### Carbon Tints

Available in blue, gold, green, and red (additional





































Orange/White



#### THE CREW

We have come together from many different places. Our common bond is the bikes that we build. We wake up everyday as individuals and when we pass through the doors of our factory we become a team. Each of us is a framebuilder, everyday we take pride in putting to use our combined knowledge and skills to create something special for each of our customers.

#### **SHOUT OUTS**

We are not alone in our quest. There are many individuals and companies out there that go out of their way to help us to bring these bikes to life. We would like to take this moment to thank you with some old school SHOUT OUTS:

All of our dedicated bike shops, all of our loyal customers, Paragon Machine Works, Shimano, FSA, Michelin, WTB, Ergon, Chris King, Phil Wood, Metal Improvement Company, Reynolds Composites, Reynolds U.K., True Temper, Jon Bruno and the Men's Pro/Elite Racing Team, the IF/Kemper Elite Women's Road Team, Redbones, The Bodega Posse, I.C.E., Edge Composites, Maine Precious Metal Casting, Igo's Welding Supply, PPG, Screen Specialties, Security Bicycle Accessories, SRAM, Smith Optics, Crunch Brand Communications, The Boston Red Sox, Jared at Keezer Sportswear, Carl "Snarl" Schlemowitz, Ant Bike Mike, Bobo at Laser Services, Brent at Laser impressions, Albert at Brave Soldier, Matt "The Electrician" Donohue, Ted Ty, Atlas Press, and you.

Special BIG UPS go out to the big Indy Fab addicts: Cris Bloomfield, Diasuke Yano, Jam Price, Darren Ling, Richard Kumar, Andamo Deming, Rich Dawson, Nigel Harris, James Chester, Marvin Sleppian, and Gary Smith.

A big fat WORD UP and an accompanying HIGH FIVE to all of the other framebuilders out there still slinging the torch and keeping the dream alive. Peace. Indy Fab.

