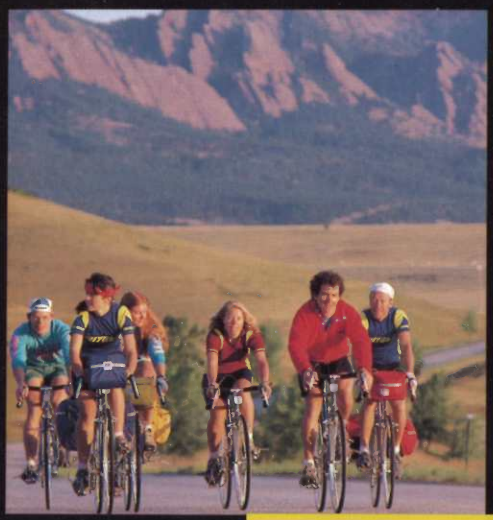
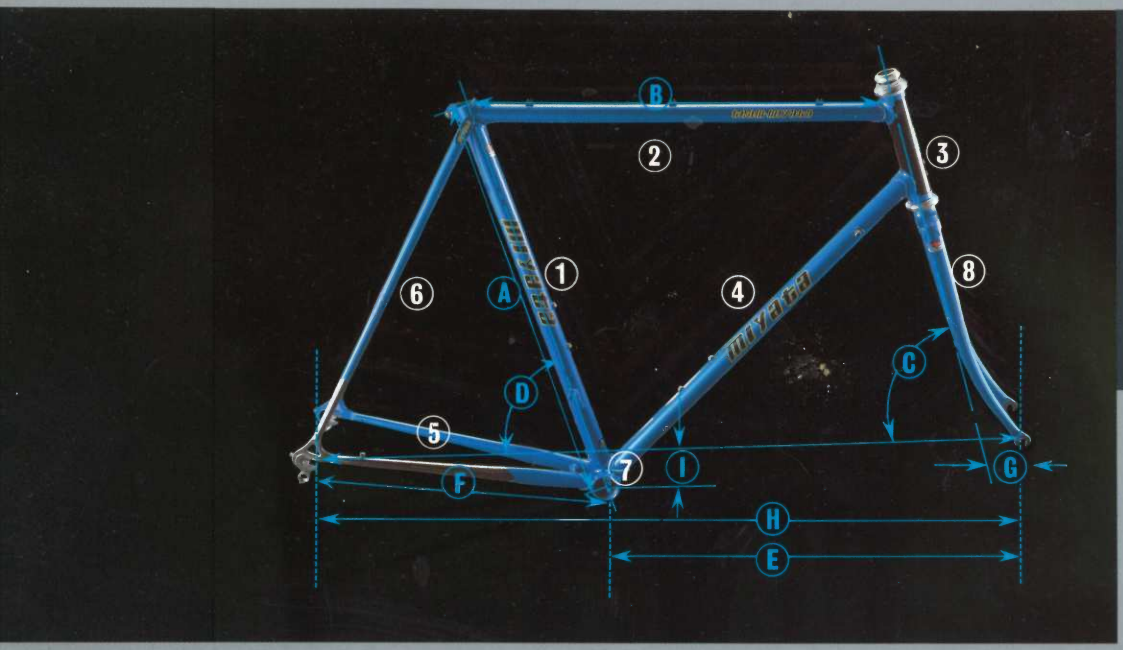


**THE RIGHT FRAME OF REFERENCE**

# MIYATA. THE RIGHT FRAME OF REFERENCE.






***Frame Geometry***
*A Seat Tube Length*
*B Top Tube Length*
*C Head Tube Angle*
*D Seat Tube Angle*
*E Front Center Length*
*F Chain Stay Length*
*G Fork Offset (Rake)*
*H Wheelbase*
*I Drop*

***Frame Anatomy***
*1 Seat Tube*
*2 Top Tube*
*3 Head Tube*
*4 Down Tube*
*5 Chain Stays*
*6 Seat Stays*
*7 Bottom Bracket*
*8 Fork*

You've probably heard the term, frame geometry. What does it mean? Simply stated: frame geometry is the relationship between the main frame tubes—the angles at which they intersect.

Why is this information important? Frame geometry dictates how well a bicycle can perform a specific task. So, your ultimate satisfaction with your new bicycle will depend on whether or not the frame was designed to do what you want it to.

## THE RIGHT DESIGN

For example, steep tube angles are used for racing bicycles. The seat tube and head tube are more vertical than other frames, the angle of fork rake is reduced, and the seat and chain stays are shortened to pull the wheels close to the main tubes. The result is a very stiff frame with a short wheel base. A bicycle bearing such frame geometry quickly transforms all the cyclist's power to the rear wheel for tremendous break-away speed. It is quick, responsive and extremely maneuverable. But if you're planning a long road trip and have lots of gear to carry, you won't be happy.

But you can be happy that Miyata has a frame specifically designed for every use: Racing, Track, Triathalon, Touring, Mountain, City and Beach. Even bicycles that are designed to satisfactorily perform in a variety of situations for those of you who can't make up your mind (or resist buying more than one bicycle).

## THE RIGHT STUFF

Once intelligent frame geometry has been achieved, sophisticated metallurgy must follow. If responsiveness has been the focus of the design, it must not be defeated by mass. To that end, Miyata has created its own special version of chrome molybdenum alloyed steel. CrMo. Exceedingly light weight, amazingly strong, it is processed to the industry's most exacting tolerances in our own plant. We're the only bicycle manufacturer to go to the trouble of processing our own tubing, but the reputation we've earned for frame excellence makes it well worthwhile. And because we process our own tubing, Miyata frames are already in their second generation of triple-butting—an evolution that has produced refinements in tubing design yet undiscovered by other frame makers.

*Butting is simply the process of making the tubes thicker at the ends, where the tubes butt together, to create stronger joints. Double-butting then, means the tube walls are thicker on the ends than in the middle. In triple-butting, the two ends are two different thicknesses. When you have your own tubing mill, you can use the exact thickness dictated by frame dynamics instead of what you can buy from a tubing company's warehouse.*

Miyata has never been content with yesterday's technology. To reduce weight still more without sacrificing strength, Miyata is introducing the latest refinement in tube design—the Spline. A discrete ridge of CrMo steel that rifles its way around the interior wall of very, very thin tubing to give it the strength of tubing many times thicker. The advantages of Spline tubing in bicycle frame construction should be obvious. And they are: while seeking excellence for our own production frames, suddenly we have tubes sought after by the world's finest custom frame makers. Welcome.

## THE RIGHT INVESTMENT

Assembly is perhaps the most critical phase in the creation of a bicycle frame. And it is at this stage that Miyata exceeds industry standards in every step of production. The specific geometry of the frame's design is maintained by carefully mitering the tubes by laser beam, then joining them with investment-cast lugs. Accuracy is crucial. Gaps in the molten brass flowing between lug and tube wall can create weak spots, and all the refinements in tube strength are instantly negated. The precision of investment-cast lugs assure that no compromise is made in the frame's integrity. Equally critical to frame strength are the temperatures used during brazing. Overheating or rapid cooling makes the metal brittle and prone to shatter under stress. Brazing is too delicate to be entrusted to an assembly line worker with a hand

***Our computerized frame brazers...destroying a myth.***