



  
**MERLIN**  
**TITANIUM**

# Nothing Is Built Like A Merlin.

In the world of high-performance bicycles, the word is out: Titanium outperforms everything else. And among knowledgeable riders, the titanium name you'll hear most often is Merlin. That's because in the years since we created the first modern titanium frame in 1986, Merlin's research has led the way toward the ultimate bicycle frame.

## The Experts Agree.

The fact is, no one knows titanium as well as we do. That's why cyclists from all over the world choose Merlin. Including former U.S. Olympic coach Eddie B., who insists on Merlin frames for his Subaru Montgomery riders. And mountain bike champion John Tomac, who has demanded Merlin's expertise for his frames since 1989.

The critics seem to be impressed too: "Smoother than any steel bike I have ridden," says *Bicycling* magazine. "Incredibly smooth and surefooted," notes *Bicycle Guide*; "the Merlin is magic." "A ride like no other," affirms *Mountain Bike Action*.

## The Way It Works.

Strong praise, but one ride on a Merlin and we think you'll agree—there really is nothing else like it.

That's because there's nothing else quite like the titanium alloy we use in our frame tubes. Our 3-2.5 alloy is made of 94.5% pure titanium, 3% aluminum and 2.5% vanadium, creating an engineering material that is 40% lighter than chrome-moly steel, 50% more resilient, and 200% higher in fatigue strength.



Merlin's welded seat tube insert is precision formed for effortless seat height adjustment and positive grip when tightened.



Each bearing can be lubricated in seconds through individual ports to purge both dirt and water and reduce frictional drag.



Our vertical drop-out hanger changes the geometry of

In fact, titanium has the highest strength-to-weight ratio of any frame material in current use, and it displays superb torsional properties at lower weights. So unlike steel or aluminum, titanium can deliver better flexibility to absorb road shock, yet retain excellent torque resistance to counteract pedaling and cornering loads.

In addition, titanium does not corrode or rust, and it needs no paint. Its astonishingly high fatigue strength means that it will virtually never wear out. And it is almost impossible to dent or break in normal use. Perhaps that's why *Bicycling* magazine called our frame "The ride of a lifetime."

## Made By Hand.

Merlin tubing is custom-drawn to our exclusive specifications, which are rigorous enough to include certification for aerospace use. We build every frame by hand in our own factory, to the most meticulous standards in the bicycle industry (*Mountain Bike Action* simply says our frames have "the best welds in the world").

We also make our own brake bosses, shifter bosses, dropouts and cable stops from specially selected titanium alloys. Every frame is inspected after each stage of manufacture, and aligned on our bench.

Following a final quality audit, we apply our unique satin-grey lifetime finish, which enhances the beauty of the metal and shows off the artistry of our welds. Soap and water are all you'll need to keep it looking like new.

## Details Make The Difference.

Every Merlin frame comes complete with our WTB/SunTour Grease Guard™ bottom bracket. Incorporating one-piece cassette bearings and integral lip seals, our system is not only lighter than conventional units, but it can be lubricated in seconds through individual grease ports. And our spindles are compatible with all popular cranksets.

We use an even stronger titanium alloy, called 6-4, in our dropouts, which are cut from solid plate that will not bend or break in normal use (our derailleur hanger is the strongest one you can buy).

Finally, our seat clusters include a precision-reamed insert for perfect seatpost fit, while our seat binders are machined from a solid titanium bar to ensure lasting durability.

It all adds up to a bicycle that you really must try to appreciate. And so we invite you to visit your nearest Merlin dealer soon to see for yourself why so many cyclists agree: Nothing rides like a Merlin.



Dropouts are made from 6-4 titanium alloy, Tough 6-4 titanium alloy is off normal alloy.



The brake bridge is precisely mitered before welding for a perfect fit. The center hole is machined from solid bar for rigidity.



All shifter bosses and cable guides are made from rust-free high-strength titanium. Deep rivets hold large water bottles securely.





"We're a team and it shows  
in our product."

*Ashley Rowland  
Former Wheelchair Tennis 2nd seed  
Expert mountain bike racer  
President, AbleWheels*

"Explosive acceleration is what it's all about"

*Tom Cavener  
One of the world's top jetset riders  
Olympian, 3-time National Champion  
Julien Mougin/Team*

*Maté Kalló*  
National Dutchman Classic Champion 1998, 1999  
Major Winner, 1990 Tour de France  
2000 Olympic Cycling Series Champion  
Sakuma Hasegawa Team

**"Reliability means everything  
at 60 mph downhill."**



*Steve Hogg*  
Olympic gold and silver medalist  
Avalanche and Iron 3 Champion  
Sakuma Hasegawa Team

**"The bike defies gravity."**



**"Equipment doesn't win races,  
but I like having an edge."**

*Leonard "Honey" Nils*  
World Championship Silver and bronze medalist  
Olympic silver and bronze medalist  
Sakuma Hasegawa Team



**"Not a single frame failure  
after two years of racing."**

*Craig Campbell*  
Avalanche Iron 3 Iron 3 Champion  
Sakuma Hasegawa Team





"Uniform welds make it beautiful.  
Complete penetration makes it strong.  
I make sure you get both!"

*The Definity  
Performance Acetylene  
Masks Manufacture*



*Colin Cole  
Senior frame and motorcycle  
fitter built in Los Angeles  
Finishing and shipping, Merlin Mechanics*

**"A frame this durable deserves  
a finish to match."**



*Math O'Keefe  
Expert mechanic and frame  
aligner and quality control  
Merlin Mechanics*

**"When a bike's built right, you can  
feel the difference in the ride."**



**"We start with tubing, bar stock  
and plate. We finish with something  
that lasts forever."**

*Steve Anderson  
Assistant bike fitter  
Production manager, Merlin Mechanics*



**"Lots of things make Merlins  
unique, but the most important  
ingredient is the people  
who put them together."**

*Gregory Jones  
Chairman, Merlin Mechanics*



Frame Size (center to center)	X Small	Small	Medium	Large	X Large
Nominal size (in)	14.0	14.5	20.0	21.5	23.0
Head angle (degrees)	70	70.5	71	71.5	72
Seat angle (degrees)	73.5	73.5	73	72.5	72
Nominal top tube (in)	20.5	22.0	23.0	23.75	24.5
Chainsstay (in)	16.75	16.75	16.75	16.75	16.75
Wheelbase (in)*	40.12	41.0	41.75	42.12	43.0
Standover height (in)	26.75	27.75	28.75	31.63	32.63
Bottom bracket height (in)	11.5	11.6	11.8	11.9	11.9
Head tube length (in)	3.38	3.75	4.25	5.5	6.0
Stemmer length (in)	5.0	5.5	6.0	7.0	7.5
Frame weight (pounds)	2.83	3.21	3.30	3.67	3.75

\*Rincbey Logic fork (1.75 cu. inches)

#### Features:

- 27.2-mm seatpost diameter
- 1 1/8-inch clamp-on front derailleur
- 132.5-mm rear axle spacing
- Top tube cable routing is available at extra cost
- Rear U-brake bosses are a no-cost option
- Satin grey finish
- Grease Guard™ bottom bracket
- Optional fork: Rincbey Logic  
Fork color: Chromed Black Ice
- Note: frame weight does not include fork or bottom bracket.
- X Small's do not have water bottle mounts on the seat tube; brakes are mounted on the chainsays
- Standover height measured midway on the top tube

For an approximate calculation of your correct frame size, measure your inseam in inches, crotch to floor in bare feet, and multiply by 59 percent. Your dealer can then help you fine-tune the fit. All models have sloping top tubes. "Nominal size" can be used for comparison to non-sloping frames.



Frame Size (center to top)	49 cm	51 cm	53 cm	55 cm	57 cm	59 cm	61 cm
Head angle (degrees)	72.5	73	73	73.5	73.5	74	74
Seat angle (degrees)	74	74	74	73.5	73	73	72.5
Top tube (cm)	52.1	53.3	54.4	55.6	56.5	57.5	58.5
Chainstay (cm)	41.5	41.3	40.6	41.1	41.1	41.1	41.6
Wheelbase (cm)*	97.0	97.5	98.0	98.0	98.4	99.0	100.2
Standover height (cm)	73.7	75.6	77.5	79.4	81.3	83.2	85.1
Bottom bracket drop (cm)	7.3	7.0	7.0	7.0	7.0	7.0	6.7
Head tube length (cm)	6.6	8.6	10.8	12.3	13.7	15.5	18.1
Stem length (cm)	10.8	12.8	14.7	16.1	18.0	19.8	21.9
Fork rake (cm)*	5.0	4.5	4.5	4.0	4.0	4.0	4.0
Frame weight (pounds)	2.74	2.86	2.97	3.06	3.39	3.61	3.90

\*SR Prism fork

#### Features:

- Geometry by Tom Kelloff
- 27.2-mm seatpost diameter
- 1.25-inch clamp-on front fender/rack
- 128.5 or 130-mm rear axle spacing (default spacing is 128.5)
- Brake bridge center hole is 35.4 cm
- Rear brake cable guides are offset for direct routing

- Satin grey finish
- Grease Guard™ bottom bracket
- Optional fork: SR Prism  
Fork color: Iridium blue  
Fork brake hole center: 35.6 cm  
Fork blade length: 37.0 cm
- Note: Frame weight does not include fork or bottom bracket

For an approximate calculation of your correct frame size, measure your inseam in centimeters, crotch to floor in bare feet, and multiply by 66 percent. Your dealer can then help you fine-tune the fit.



"It's the best bike in the world!"

8/11/98  
Parsons U.S. Olympic coach  
Hansjörg Knobel, 1992 Olympic triathlete

**MERLIN**  
**TITANIUM**

205 Washington Street, Somerville, Massachusetts 02148 617-626-7855

*For additional technical information and the name  
of your nearest Merlin dealer, please call.*