

# GIORGIO FURLAN'S COLNAGO CARBITUBO



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When we think of Italian racing bikes, we tend to conjure up images of old-world tradition — venerable manufacturers, many of them former racers, turning out hand-made steel frames with exquisite lug-work, stylish paint jobs and an aura of romance that transforms tubes and solder into works of art. So it comes as somewhat of a surprise that the most technically fascinating road bike in our pro-bike series hails from none other than Italy's Ernesto Colnago, one of the oldest and most renowned names in cycling.

With its double down tubes and straight-blade "Precisa" steel

fork, Giorgio Furlan's Colnago Carbitubo is about as novel a racing bike as you're likely to find — on or off-road — but its radical design has proved itself worthy enough to make this carbon fiber machine the bike of choice for Furlan's Ariosteia team and the Clas team of Spain. Furlan certainly put his Carbitubo to good use in 1992, winning the Tour of Switzerland and Flèche Wallone, while Clas' Toni Rominger won the Tour of Lombardy and rose to second in the FICP points standings on a similar machine.

Much of the Carbitubo's advanced technology originated from work on the wild-looking Colnago 'C35' monocoque

### Tech talk:

#### Bill Farrell, technical consultant:

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carbon fiber project bike developed in 1987 by the factory in collaboration with engineers from the legendary Ferrari automobile company. The straight-blade fork made its debut on the C35, and within a year the Carbitubo, whose nine carbon fiber tubes are supplied by an outside manufacturer and assembled by Colnago, was born.

According to Colnago, the straight-blade fork was tested at Milan Polytechnic's Department of Aerospace Engineering to explore concerns that its design would be excessively stiff and therefore transmit too much vibration to a rider's arms. The results, Colnago says, showed that the straight fork was no stiffer than a traditional

### Specifications:

**Tubeset:** Carbon fiber  
**Seat tube:** 56 cm (c to t)  
**Top tube:** 54.5 cm  
**Chainstay:** 40.7  
**Wheelbase:** 99.9  
**Fork rake:** 4.5  
**Bottom bracket:** Shimano Dura-Ace  
**Crankset:** Dura-Ace 53x41 170mm  
**Pedals:** Dura-Ace  
**Hubs:** Dura-Ace (32 front and rear)  
**Seatpost:** Dura-Ace

**Levers:** Dura-Ace  
**Brakes:** Dura-Ace dual caliper  
**Derailleurs:** Dura-Ace  
**Shifters:** Dura-Ace  
**Freewheel:** Dura-Ace Hyperglide (12x21)  
**Rim:** Ambrosio Nemesis Durex  
**Tires:** Vittoria CX  
**Stem:** Italmanubri  
**Bars:** Italmanubri 41  
**Tap:** Bike Ribbon  
**Saddle:** Selle San Marco Regal  
**Cage:** Elite  
**Computer:** Avocet 40

one and that its design actually helped eliminate resonance from vibrations caused by rough road surfaces.

Our curiosity piqued, we asked Frame Alignment System developer and Fit Kit inventor Bill Farrell for his views on the fork. Farrell, who had been intrigued by the design while attending the Montreal World Cup race, replied: "I used to think that the curve in fork blades was necessary to provide the offset, or rake, and absorb shock. But after seeing the forks and thinking about their design, it's obvious to me that a straight-blade fork can provide any desired rake. In fact, manufacturing and aligning a straight-blade fork appears to be easier and more precise than for a fork with curved blades. As far as shock absorption goes — that can be engineered into the fork blade material and wall thickness. The bottom line is that, if the forks didn't absorb shock adequately, none of the pros would use them." The Carbitubo's double down-tube design, Colnago says, was prompted by a desire to eliminate lateral flex and improve ride stability and strength, and we've noticed in recent years that when teams have been supplied with Carbitubos and steel-framed Colnagos, the former is generally

used for hilly races, where stiffness and light weight are paramount considerations.

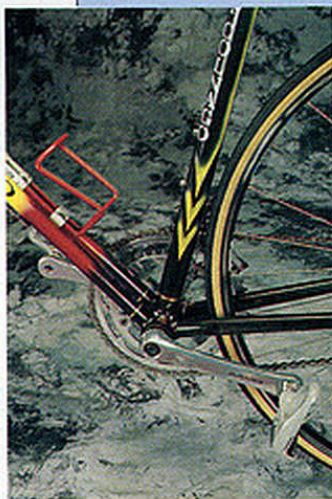
Furlan's bike was mostly equipped with Shimano components, and while it was not surprising to see the bike outfitted with down-tube shifters instead of the heavier STI levers for the hilly Montreal race, we did wonder about the choice of rather heavy wheels, with 32-spoke Ambrosio Nemesis Durex rims (425 gr.) front and rear. Of course, European pros generally choose durability over lightness when it comes to equipment, so perhaps the rough city streets making up the circuit dictated this selection.

The dimensions of Furlan's Colnago reflect the Italian rider's compact build (sorry, we were unable to get his measurements) and the typically shorter top tubes (54.5 cm for a 56 cm c-to-t frame) favored by Italian manufacturers. Setback measured 14.7 cm. The rake of that unusual looking straight-blade fork, by the way, was 4.5 cm. Furlan uses 170mm cranks.

Tradition is often what you make of it, and while the Carbitubo may not conform to our musings about Italian frame building, it has established a tradition of its own — that of winning races. □



Straight-blade fork and double down tubes make Carbitubo unique on the pro circuit.



Tight rear triangle leaves little clearance between rear tire and seat tube.

### How close can you come?

Colnago Carbitubo framesets (with Precisa fork) are available for a suggested price of \$2,600, according to a spokesman at distributor Todson, Inc. The frames can be had in Ariosteia, Clas or Word Perfect team colors as well as other colors. More information: Todson, Inc., 14 Connor Lane, Deer Park, N.Y. 11729. 1-800-524-2764.