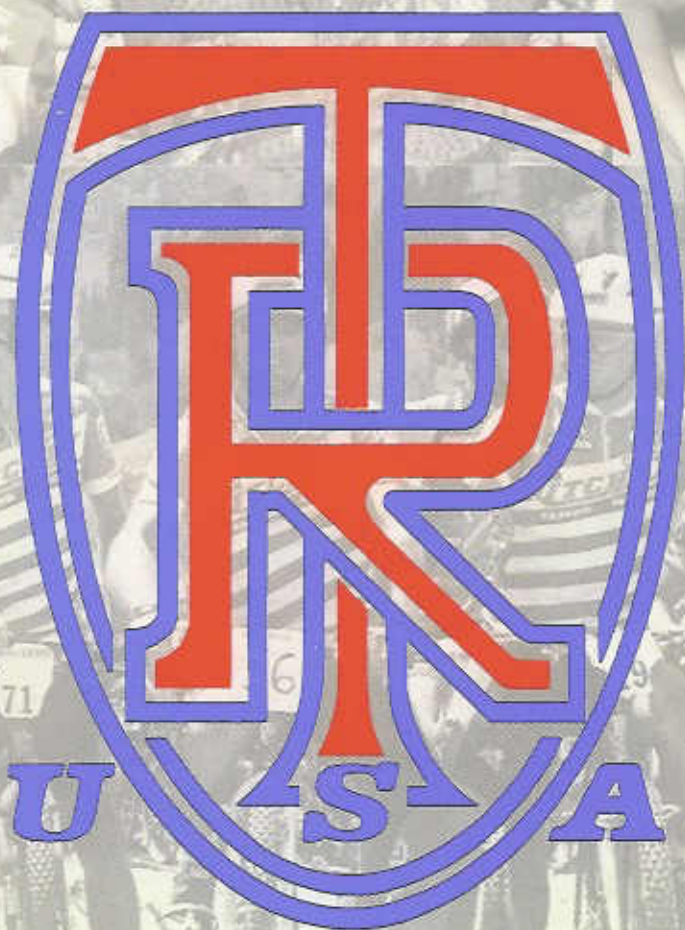


RITCHEY COMPONENT CATALOG



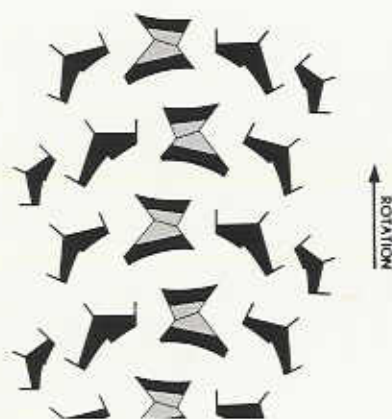
1992

QUALITY COMPONENTRY



MOUNTAIN TIRES

No one designs mountain bike tires like Tom Ritchey. Manufactured with the highest-quality compounds and standards in the industry, each Ritchey tire design is painstakingly thought out to provide maximum traction with minimum rolling resistance and weight. By the time a design is final, Tom and his team riders have put the tires through hundreds of field tests to ensure optimum race and training performance. Once again, Ritchey sets a new standard in tread design technology with the super traction MegaBite Z-Max, available in 1.9", 2.1", and 2.35" widths. In honor of Ritchey's 1991 Gold and Silver World Championship Cross-Country Medals, Tom has added a new, special limited edition, "WCS" (World Championship Series) tire. WCS tires are low-density rubber, superlight tires. The WCS is available in each tire design in either standard black or special red, a softer, more puncture-resistant compound. Ritchey tires are the lightest tires, and with the new "WCS" series, the lightest just got lighter!



MEGABITE Z-MAX

The Z-Max is the newest in the evolution of MegaBite tires. Perfecting Vector Force Analysis, it takes off-road traction to the max!

◆ 26x2.1	660 grams	66 tpi
◆ 26x2.35	700 grams	66 tpi
◆ "WCS" 26x1.9 Kevlar	485 grams	127 tpi
◆ "WCS" 26x2.1 Kevlar	560 grams	127 tpi
◆ "WCS" 26x2.35 Kevlar	600 grams	127 tpi
◆ 24x2.0	600 grams	60 tpi
◆ 20x2.0	460 grams	60 tpi
◆ 20x1.75	400 grams	60 tpi

Red compound avail.
Red compound avail.
Red compound avail.



MEGABITE HARDDRIVE

The HardDrive uses a Vector Force Analysis tread with a more open knob pattern and a wider width. It's perfect for soft, loose, and rugged terrain. This tire won the 1989 NORBA World Championships.

◆ 26x2.1	630 grams	60 tpi
◆ 26x2.1 Kevlar	575 grams	60 tpi
◆ "WCS" 26x2.1 Kevlar	530 grams	127 tpi
◆ 700x40c	470 grams	60 tpi

Red compound avail.



MEGABITE OVERDRIVE

This is the first tire to ever use Vector Force Analysis in its tread design. The OverDrive is an excellent high-speed, low rolling resistance tire that offers great traction for fireroads and hard-packed surfaces.

◆ 26x2.0	650 grams	66 tpi
◆ 26x2.0 Kevlar	600 grams	66 tpi
◆ "WCS" 26x2.0 Kevlar	530 grams	127 tpi
◆ 700x38c	450 grams	66 tpi
◆ "WCS" 700x38c Kevlar	380 grams	127 tpi

Red compound avail.

Red compound avail.

Note: Black wall available on most MegaBite models.



MOUNTAIN TIRES

FORCE RACING K

This two-time NORBA National Championship winning tread is still the leader in lightweight, off-road tires. The Racing K is now available in the exclusive "WCS" series compound, making it the lightest mountain bike tire ever.

◆ 26x1.9 Kevlar	535 grams	66 tpi	
◆ "WCS" 26x1.9 Kevlar	475 grams	127 tpi	Red compound avail.

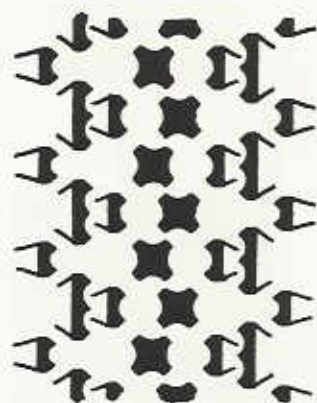
World's lightest MTB tire!



FORCE DURO

The Force Duro has been a longtime favorite of mountain bikers. The Duro provides similar performance to that of the Racing K, but with taller knobs to make a longer-wearing tire.

◆ 26x2.0	640 grams	66 tpi	
◆ 26x2.0 Kevlar	575 grams	66 tpi	
◆ "WCS" 26x2.0 Kevlar	510 grams	127 tpi	Red compound avail.



MOD QUAD

The Mod Quad uses Vector Force Analysis to combine the lower rolling resistance of the original Quad with the off-road performance of the MegaBites, making it the ultimate multi-terrain tire.

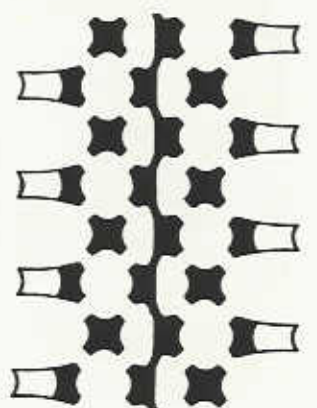
◆ 26x2.0	650 grams	60 tpi	
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QUAD

The Quad is the most copied, multi-terrain tire on the market. This popular design sets the standard for all-terrain tire performance.

◆ 26x1.6	550 grams	60 tpi	
◆ 26x1.9	640 grams	66 tpi	
◆ "WCS" 26x1.9 Kevlar	560 grams	127 tpi	Red compound avail.



Note: All tire weights are subject to $\pm 5\%$ manufacturing variance.



ROAD TIRES, TUBES, & RIM TAPE

Tom Ritchey has combined years of nationally ranked road racing experience with his innovative and race-winning Vector Force Analysis (VFA) technology to create the world's first road racing tire using VFA. Never before has a road tire so accurately addressed the forces imposed upon it. The result is road gripping traction and a super low rolling resistance that combined, make this the ultimate road tire. The Road Force is standard equipment on the Ritchey Road Race Team bikes, piloted by National and World team riders including Ruthie Marthes and Bobby Julich. Ritchey road tires are available in a full complement of diameters and widths.



ROAD FORCE

Ritchey hits the road with the world's first Vector Force Analysis road tires, using unique parabolic grooves for superior cornering and a special contour for an ultra low rolling resistance.

CLINCHER

♦ 700x20c	220 grams	66 tpi
♦ 700x20c Kevlar	180 grams	127 tpi
♦ 700x24c	230 grams	66 tpi
♦ 700x24c Kevlar	200 grams	127 tpi
♦ 700x28c	270 grams	66 tpi
♦ 700x28c Kevlar	220 grams	127 tpi

TUBULAR

♦ 700x21c (120 psi)	250 grams	cotton/latex
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TOM SLICK

One of Tom's team riders named the Tom Slick for the fun you'll have on this serious tire. The Tom Slick combines VFA technology and parabolic directional cuts to make the best smooth rolling tire ever made for MTBs. On the road this tire uses a smooth, low rolling-resistance design down the middle high-wear area for improving speed and durability. Start to bank on turns, and you'll feel the proven Ritchey design with inverted wedges catching more of the road's surface area.

♦ 26x1.4	450 grams	60/66 tpi
♦ 26x1.4 Kevlar	360 grams	127 tpi
♦ 700x38c	450 grams	60 tpi



CROSS-BITE

Ritchey's latest in hybrid-fitness tire design. The 700x38 Cross-bite is designed for smooth rolling pavement use and sure-gripping fire road traction. The Cross-bite's inverted "jaw" and overall smooth contour are designed for hard-biting cornering in unstable trail conditions and smooth, fast riding on the pavement.

♦ 26x1.5	450 grams	60 tpi
♦ 700x38c	450 grams	60 tpi

PRO "WCS" LATEX TUBES

Ritchey's NEW Pro "WCS" Tubes are the world's lightest! One pair (26x1.8-2.1) will save nearly 100 grams of rotating weight over other lightweight latex tubes. Add to that the trusted, puncture-resistant quality of Latex rubber from an Italian manufacturer of racing tubulars, and these tubes genuinely earn the distinction of World Championship Series quality.

♦ 26x1.8-2.1	110 grams
♦ 26x1.9-2.3	130 grams
♦ 700x18-24c	50 grams
♦ 700x24-30c	65 grams
♦ 700x30-38c	80 grams

PRO "WCS" RIM TAPE

At just 3 grams per wheel, this high-quality, polyester weave, adhesive-backed rim tape will save 30 grams per pair over conventional rubber rim strips, and improve tire/rim compatibility problems. Available in three widths, one roll per pair of rims.

TAPE WIDTHS (rim)

♦ 13mm (19-21mm)
♦ 16mm (22-24mm)
♦ 19mm (25-27mm)



VANTAGE RIMS

Ritchey Vantage rims have become the standard for race-winning performance in rim technology. The trademark "V" cross section provides optimal lateral rigidity, and simultaneously reinforces the critical spoke area, eliminating the need for heavy eyelets. While the strength of the rim is maximized, the weight of the rim is minimized. The Vantage advantage is a rim that accelerates faster, climbs quicker, and maneuvers with superb agility. That's why Vantage rims were the number one choice of top off-road pros in the 1990 and 1991 race seasons. **Ritchey's premier rim is the exciting, lightweight Vantage Pro "WCS" MTB rim (395 grams).** Also offering a new level of minimal weight, along with improved performance and durability, is the new Vantage Comp Road for the discriminating road rider.

VANTAGE PRO "WCS"

After six years of rim-making experience, Ritchey introduces the Vantage Pro "WCS" Rim with 395 grams of the finest alloy and construction. 1991 Gold and Silver World medals prove the Vantage Pro "WCS" has no equal.

- | | | | |
|--------------|--------------------------------------|----------|--------------------------|
| INTENDED USE | ◆ pro-class racing, project bikes | WEIGHT | ◆ 395 grams |
| OPTIMUM TIRE | ◆ MegaBite Z-Max 2.1, 2.35, Racing K | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 26" | | |
| DRILLINGS | ◆ 28, 32, 36 holes | | |



VANTAGE COMP

This is the popular rim that won the 1989 NORBA World Championships, and took a Silver and two Bronze medals in the 1990 Pro/Elite Cross-country World Championships.

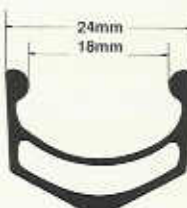
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|--------------|---|----------|--------------------------|
| INTENDED USE | ◆ competition, high performance, rugged condition use | WEIGHT | ◆ 415 grams (26") |
| OPTIMUM TIRE | ◆ MegaBite series tires in 2.0, 2.1, and 2.35 | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 26", 24" | | |
| DRILLINGS | ◆ 28, 32, 36 holes | | |



VANTAGE EXPERT

The original "V" cross section rim. The wider width Vantage Expert is designed for the rigors of rugged off-road use.

- | | | | |
|--------------|-------------------------------------|----------|--------------------------|
| INTENDED USE | ◆ performance, rugged condition use | WEIGHT | ◆ 450 grams (26") |
| OPTIMUM TIRE | ◆ MegaBite and Force series tires | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 26", 24" | | |
| DRILLINGS | ◆ 28, 32, 36 holes | | |



VANTAGE SPORT

The Vantage Sport has more features than any other rim at its price. It uses oversize twin side pockets for improved torsional rigidity while retaining the classic Vantage looks.

- | | | | |
|--------------|--|----------|--------------------------|
| INTENDED USE | ◆ sport, touring, rugged condition use | WEIGHT | ◆ 495 grams (26") |
| OPTIMUM TIRE | ◆ Force and Quad series tires | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 26", 24", 20" (BMX) | | |
| DRILLINGS | ◆ 32, 36 holes | | |



VANTAGE CROSS-SPORT

This new rim is a scaled-down and narrow version of the popular and affordable Vantage Sport. The Cross-Sport is available in both 700c and 26" diameters.

- | | | | |
|--------------|--|----------|-------------------------------------|
| INTENDED USE | ◆ cross-touring, MTB speed wheels | WEIGHT | ◆ 500 grams (700c), 450 grams (26") |
| OPTIMUM TIRE | ◆ MegaBite 700c, Quad 1.6, Tom Slick 1.4, and the new Cross-bite | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 700c, 26" | | |
| DRILLINGS | ◆ 32, 36 holes | | |



VANTAGE COMP ROAD

The new Vantage Comp Road uses the highest quality aluminum and a superior "V" design for added strength.

- | | | | |
|--------------|---------------------------------------|----------|-------------------------------------|
| INTENDED USE | ◆ road racing, criteriums, triathlons | WEIGHT | ◆ 420 grams (700c), 380 grams (26") |
| OPTIMUM TIRE | ◆ Ritchey Road Force tires | FINISHES | ◆ silver, duranomic grey |
| DIAMETER | ◆ 700c, 26" (triathlon) | | |
| DRILLINGS | ◆ 28, 32, 36 holes | | |



PROELITE WHEELS & ACCESSORIES



RITCHEY PROELITE WHEELS

A race proven, limited edition "pro-quality" set of team wheels!

Second only to the frame, wheels are the most important component of the bicycle. Because a wheel absorbs the most punishing abuse of the trail, it must be strong. The wheel must also be lightweight for agility and handling. Taking weight off the wheel, even in the smallest increments, yet maintaining strength, is a challenge met by only the best. By shaving over a pound from a standard wheelset, Ritchey has met this challenge with the ProElite wheels. Unlike other wheels, Tom Ritchey has not sacrificed their integrity in his quest for light weight.

ProElite Wheels are meticulously built. Only a very limited number are made annually, due to the labor intensive process put into each and every set.

ProElite Wheels use Ritchey's new ultra-light 395 gram **Vantage Pro "WCS" Rims**. Ritchey utilizes the **Shimano Ultegra** front hub and the **Deore XT** 7-speed rear hub. These are laced with quality stainless steel butted 15/17 (front) and 14/16 (rear) spokes. Finally, **ProElite** wheels receive Ritchey's new ultra-light **MegaBite Series "WCS" Kevlar** beaded tires and **Pro "WCS" Latex tubes**.

RITCHEY GIVES YOU SOMETHING EXTRA...

We now carry a wide variety of clothing and accessories, including official Ritchey racewear, casual clothing, shop aprons, caps, sweat bands, gloves, decals, and water bottles. Our official short sleeve team jerseys, long sleeve team jerseys, full zip team wind breakers, and matching shorts are available. Show them you use Ritchey components with these beautifully bold red-white-and-blue designs.

New for '92 are Italian made caps and headbands—choose from Z-Max tread-head style and popular "TR" logo designs.

For after-ride clothing choose from short sleeve t-shirts, long sleeve t-shirts, workshop aprons, and sweatshirts, featuring the popular Ritchey logos "Ritchey," "TR," "Handmade by Tom Ritchey," and the famous puff-ink MegaBite tread design running from front to back. With sizes from small to extra large, and colors from navy blue to red, we're sure you'll find something to fit your style.

Ritchey water bottles come in a variety of colors and styles and are available in two sizes, regular (20 oz.) and large (28 oz.). Riding gloves are made in small, medium, large, and extra large sizes, all in bright red-white-and-blue.



...STYLE



FORCE COMP STEMS

The numerous medals won at the 1990 and 1991 World Championships are just the latest proof that the Force Comp Stem is the strongest, lightest stem available. The Force Comp features unique, butted "supertubing," made with a proprietary second heat treatment process to allow the use of thinner gauge chromoly. An unbeatable combination is made with trademarked ovalized extension tubing and unparalleled quality construction. Fatigue testing showed the Force Comp to exceed JIS standards by 300%, outperforming all previously tested stems. At just 290 grams (150mm), the trustworthy Force Comp leads in lightness and durability. The butted Force Comp is now also available for high-performance road riders. Currently, members of the U.S. National Cycling Team, Spago, and Subaru, claim this stem to be the strongest and lightest they've ever used!

FORCE COMP (MOUNTAIN)

Considered the world's best, this stem has won two Gold, two Silver, and a Bronze medal in World Championship competition. The Force Comp continues to prove itself as the strongest lightweight stem available at any price.

- INTENDED USE ♦ competition, triathlon, and project bikes
- EXTENSION/RISE ♦ 120, 130, 140, 150, 160, (10° rise),
130 (20° rise) 120, 140 (30° rise)
- STEM DIAMETER ♦ 22.2mm (standard), 25.4mm (OS)
- BAR DIAMETER ♦ 25.4mm
- FINISH ♦ satin chrome
- WEIGHT ♦ 290 grams (150mm)

FORCE DIRECTIONAL (MOUNTAIN)

The original FD stem has been improved for '92. Its full chromoly construction has more quality features than any other stem at its price.

- INTENDED USE ♦ high-performance and general use riding
- EXTENSION/RISE ♦ 120, 130, 140, 150 (10° rise), 130 (20° rise)
- STEM DIAMETER ♦ 22.2mm (standard), 25.4mm (OS)
- BAR DIAMETER ♦ 25.4mm
- FINISH ♦ black chrome
- WEIGHT ♦ 340 grams (140mm)

FORCE COMP (ROAD)

This is the new stem used by 1991 World Cyclocross Champion Thomas Frischknecht, 1990 World Silver Medalist Ruthie Matthes, and World team rider Bobby Julich. Using the same proprietary butted construction as the classic Force Comp mountain bike stem, it's becoming the choice of top road racers world wide. This stem is 30% stiffer and lighter than alloy stems!

- INTENDED USE ♦ road racing, criteriums, triathlons, and high-performance road riding
- EXTENSION/RISE ♦ 90, 100, 110, 120, 130, 140,
(80°/-10° rise) or (90°/0° rise)
- STEM DIAMETER ♦ 22.2mm
- BAR DIAMETER ♦ 26.0mm
- FINISH ♦ satin chrome
- WEIGHT ♦ 240 grams (110mm)

FORCE DIRECTIONAL (ROAD)

The FD stem offers all of the super strength characteristics of the trademark Ritchey chromoly construction at a more affordable price.

- INTENDED USE ♦ high-performance road riding, general use
- EXTENSION/RISE ♦ 90, 100, 110, 120, 130, 140,
(80°/-10° rise) or (90°/0° rise)
- STEM DIAMETER ♦ 22.2mm
- BAR DIAMETER ♦ 26.0mm
- FINISHES ♦ satin chrome
- WEIGHT ♦ 270 grams (110mm)





HANDLEBARS

Establishing standards for handlebars has been one of Tom Ritchey's endeavors ever since he introduced the original one-piece "Bullmoose" design in 1981. A handlebar is more than a piece of bent aluminum tubing. Ritchey's designs of previous years have since become his competitors' goals. To understand this you need only look at Ritchey's LATEST bar — the remarkable ProLite "WCS," a 123 gram special development effort between Tom Ritchey and Easton Aluminum in the U.S.



PROLITE "WCS"

The ProLite "WCS" sets a new standard in handlebars strong enough for competition. At 123 grams, this shock-absorbing super bar carried 1991 World Championship Gold and Silver riders to victory.

INTENDED USE	◆ pro racing, project bikes	BENDS	◆ 4°, 6°
MATERIAL	◆ butted Easton EA70	WIDTH	◆ 560mm
FINISH	◆ hard anod-platinum	WEIGHT	◆ 123 g



PROLITE

The ProLite has become the choice of top mountain bike racers. Its lightweight, shock-absorption, and durable construction have proven a winning combination!

INTENDED USE	◆ pro racing	BENDS	◆ 4°, 6°, 9°
MATERIAL	◆ butted Easton EA70	WIDTH	◆ 560mm
FINISH	◆ black, red, silver, blue	WEIGHT	◆ 140 g



FORCELITE

The ForceLite competition bar is a new feature and value-packed bar design from Ritchey. Using a premium grade 2014-T-6 alloy, this 175 gram lightweight has the appearance, in its brushed satin or black finish, of the popular ProLite at nearly half the cost.

INTENDED USE	◆ high performance	BENDS	◆ 6°, 9°
MATERIAL	◆ 2014-T-6	WIDTH	◆ 560mm
FINISHES	◆ black, silver	WEIGHT	◆ 175 g



ORIGINAL FORCE FD

The original Ritchey alloy bulge bar, still popular for good looks and affordability.

INTENDED USE	◆ sport performance	BENDS	◆ 6°, 9°
MATERIAL	◆ 6061-T6	WIDTH	◆ 560mm
FINISHES	◆ black, silver	WEIGHT	◆ 230 g



TRUE GRIPS

Years of racer feedback have gone into Ritchey's True Grip designs. Whether you're a pro hanging on for dear life on the Kamakazi downhill, or a recreational enthusiast exploring the outback, Ritchey's True Grips will add control, confidence and comfort to any situation. Easy to grab, hard to let go, the closest thing to oneness with you and your grips.



TRUE GRIPS "WCS"

The new True Grip "WCS" are made from quality high-density neoprene foam. At a feathery 50 grams, you can still have great control on a diet!

COLOR ♦ black
WEIGHT ♦ 50 grams



TRUE GRIPS II

Ritchey's True Grips II features a unique new hand-palm-finger conforming shape. Made in right- and left-hand contours, the True Grip II uses the same great compound of the original True Grip, to offer the best in controlled performance.

COLOR ♦ black
WEIGHT ♦ 90 grams



TRUE GRIPS III GEL

Similar to the new improved-function True Grip II, the Ritchey True Grip III is made with a medium-density gel compound. You'll find them slightly thicker, yet incredibly comfortable for those rough and demanding rides.

COLOR ♦ black
WEIGHT ♦ 90 grams



TRUE GRIPS

Ritchey's True Grips have fast proven themselves to be the racer's choice. This specially formulated compound helps your hands stick to the grips without any gummy residue. Unlike many of the "trendy" grips out today, True Grips actually help to improve your performance.

COLORS ♦ black, grey, red, white, blue
WEIGHT ♦ 100 grams

SEATPOSTS

To address the fore and aft forces imposed upon a seatpost, Tom Ritchey has designed the world's first and only force directionally butted seatpost. It uses superior strength 2014 series aluminum in the post, but that's only the beginning. Instead of a bulky cast clamp, the FD post is joined to a super-tough forged, single bolt clamp. A special welding process is used to create not only the toughest seatpost available, but also the lightest. The 300mm FD seatpost weighs over 15% less than the leading competition. The FD is now available in both mountain bike and road bike sizes, and all are built with the craftsmanship and aesthetics that make Ritchey components the number one choice for serious riders!

FORCE DIRECTIONAL SEATPOST (MOUNTAIN)

It's tough, butted, light, and has the looks that belong in a showcase. The FD Seatpost is the ultimate in racing posts, and it's now available in road and off-road lengths, as well as in standard and oversize diameters.

- INTENDED USE ♦ competition and lightweight "project bikes"
- POST MATERIAL ♦ butted 2014 series (standard), 6061 T-6 (OS) alloys
- CLAMP ♦ forged alloy, single bolt
- DIAMETERS ♦ (standard) 26.2, 26.4, 26.6, 26.8, 27.0, 27.2,
(OS) 28.6, 28.8, 29.0, 29.2, 29.4, 29.6, 29.8, 30.0
- LENGTHS ♦ 300mm, 330mm (OS in 330mm only)
- WEIGHT ♦ 250 grams (26.8x300mm) 300 grams
(OS 29.4x330mm)

FORCE DIRECTIONAL SEATPOST (ROAD)

The world's first butted seatpost is now available in a road length, letting road racers benefit from a stronger, lighter seatpost.

- INTENDED USE ♦ road racing, criteriums, triathlons
- POST MATERIAL ♦ butted 2014 series aluminum
- CLAMP ♦ forged alloy, single bolt
- DIAMETERS ♦ 26.2, 26.4, 26.6, 26.8, 27.0, 27.2
- LENGTHS ♦ 240mm, 210mm
- WEIGHT ♦ 210 grams



LOGIC SADDLE

This isn't just a name stamped on some nice leather! Tom Ritchey has designed the new Logic saddle to reduce weight and maintain comfort. A new base shell holds shortened rails, therefore reducing weight. Tom took extra care to design the exterior profile for the best comfort.

- FEATURES ♦ racing profile, top-quality leather, medium-density padding
- RAILS ♦ shortened length spring steel
- COLORS ♦ black, white
- WEIGHT ♦ 315 grams



SADDLES

Ritchey designs serious saddles. Other lightweight saddles save weight by cutting away important comfort and support features that should never be compromised. Ritchey's objective was to design an inherently light saddle that retained those features and time-proven shape. Ritchey's new Logic Comp and Pro "WCS" are full-profile, full-function saddles, yet are as light as 215 grams (Pro "WCS"). New for '92, these Italian-made saddles use only premium raw materials. Mountain biking is a battle against gravity. With a Ritchey saddle you won't be charged for excess baggage.



LOGIC PRO "WCS" SADDLE

Starting from scratch, the new titanium-railed 215 gram full-feature Logic Pro "WCS" saddle is indeed light . . . years ahead.

- FEATURES ♦ racing profile, top quality leather, medium-density padding
- RAILS ♦ titanium
- COLORS ♦ black, pearl
- WEIGHT ♦ 215 grams



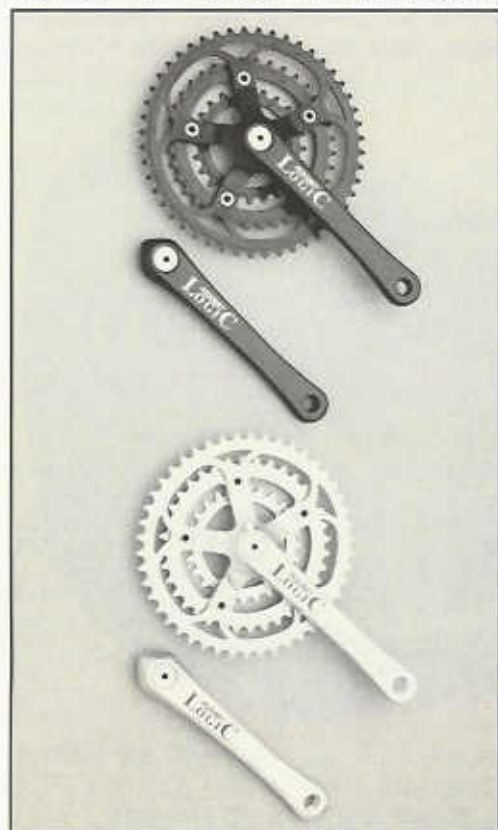
LOGIC COMP SADDLE

The new Logic Comp saddle is quality, Italian-made, with the toughest steel rails, the finest leather, and the most comfort in a classic design.

- FEATURES ♦ racing profile, top-quality leather, medium-density padding
- RAILS ♦ shortened-length spring steel
- COLORS ♦ black, white
- WEIGHT ♦ 290 grams

CRANKSETS & BOTTOM BRACKETS

At last a Logical cure for the common cold-forged crank! Tom Ritchey created this crankset with the serious rider in mind. The Logic Crankset is cold-forged for superior strength, and features an ultra-clean "hidden pin" design for less weight and increased stiffness. The Logic Crankset has a very low "Q-factor," a feature that makes for efficient and ergonomic pedaling. The left crank arm also receives a unique reinforcement at the axle area to increase strength. Finally, the super duraluminum material is hand-polished to a high-quality satin finish that's only found on the highest-quality cranks.



LOGIC CRANKSET

- MATERIALS ♦ forged duraluminum
- FINISH ♦ hand-polished silver, black anodized
- LENGTHS ♦ 170mm, 172.5mm, 175mm, 177.5mm, 180mm
- Q-FACTOR ♦ 151mm
- INNER RING ♦ 74mm
- OUTER RINGS ♦ 110mm
- CHAINWHEELS ♦ 24/36/46t, 26/36/48t
- WEIGHT ♦ 650 grams

LOGIC TANDEM CRANKSET

- MATERIALS ♦ forged duraluminum
- FINISH ♦ hand-polished silver anodized
- LENGTHS ♦ 170mm, 175mm
- Q-FACTOR ♦ 151mm
- INNER RING ♦ 74mm
- OUTER RINGS ♦ 110mm
- CHAINWHEELS ♦ 26/38/54t
- DRIVE C.W. ♦ 38/38t
- WEIGHT ♦ 1390 g



Current fads to widen bottom brackets aren't necessary with Ritchey's new Logic Bottom Brackets. The Logic BB fits a standard 68mm frame shell, while moving the cup-bearing position out to 78mm. This gives you the axle/bearing strength of a wider or oversize bottom bracket without needless extra weight and availability hassles. Through careful design and the use of the highest-quality chromoly and ni-chromium materials, Ritchey has developed the lightest and toughest bottom brackets available!



LOGIC PRO

The Logic Pro is a durable, competition bottom bracket. It's strong, light, and provides superb pedaling performance!

- CUPS ♦ sealed crmo steel, precision ground bearing surfaces
- SPINDLE ♦ hollow nickel-chromium
- THREAD ♦ English 1.37x24
- SIZE ♦ 68x120mm (centered)
- WEIGHT ♦ 285 grams

LOGIC PRO "WCS"

Same construction as the Logic Pro, but with an alloy lock ring and titanium fixing bolts for an ultimately light 250 grams.

- CUPS ♦ sealed crmo steel, precision ground bearing surfaces
- SPINDLE ♦ hollow nickel-chromium
- THREAD ♦ English 1.37x24
- SIZE ♦ 68x120mm (centered)
- WEIGHT ♦ 250 grams

LOGIC COMP

The same great Logic features with more affordable construction.

- CUPS ♦ sealed, bearing steel
- SPINDLE ♦ hollow crmo
- THREAD ♦ English 1.37x24
- SIZE ♦ 68x120mm (centered)
- WEIGHT ♦ 290 grams

LOGIC BRAKES & CABLE HANGERS

Tom Ritchey has designed a lightweight brakeset that actually helps you go faster. The new Logic Brakeset is a high-performance braking system with features top racers demand. Tom starts off with a powerful new medium-profile cantilever design, then constructs brakes using the best quality cold-forged alloy available. In addition to using a minimalistic two-position spring design, Logic cantilevers reduce the distance to the fork to eliminate performance-robbing chatter. A specially designed brake pad adjustment hole increases vertical adjustability, offering the best rim/tire versatility anywhere. To get maximum performance from Logic Brakes, Tom designed the new Logic Brake Levers. The ergonomically correct three-finger lever features a wedge profile to reduce fatigue, and a special index finger "harbor" to add comfort. Cold-forged for strength, Logic Brake Levers are just the thing to finish off this high-performance brakeset.



LOGIC CANTILEVERS

Logic cantilevers provide you with the ultimate in stopping power, and they're ultra-light to help you go faster.

- DESIGN ♦ maximum force "medium" profile
- CONSTRUCTION ♦ cold-forged 6061 T-6 alloy, brass bushing pivot bearing, two-position spring adjustment
- PAD ADJUSTMENT ♦ increased vertical adjustment hole
- CABLE END ♦ special "tuck" to hide cable ends
- COLORS ♦ black, silver
- WEIGHT ♦ 145 grams/set

LOGIC BRAKE LEVERS

Now you can get a handle on braking performance with strong, lightweight, and full reach Logic Brake Levers from Ritchey.

- DESIGN ♦ three-finger profile with anatomically contoured lever
- LEVER MATERIALS ♦ cold forged 6061 T-6 Alloy
- CABLES/HOUSING ♦ BRS low-friction, high-strength
- COLORS ♦ black, silver
- WEIGHT ♦ 95 grams/each (without cables and housing)

CLIFF HANGER CABLE HANGER

Now you can take braking to the edge with the new Cliff Hanger Cable Hanger from Ritchey!

- DESIGN ♦ special high-strength, low-profile for full stem adjustment (optional cable adjuster)
- MATERIALS ♦ 6061 T-6 forged alloy
- THICKNESS ♦ 4.5mm
- CABLE DROP ♦ deep 16mm drop for smoother cable routing
- SIZING ♦ 1", 1-1/8" (OS)
- COLORS ♦ black, silver
- WEIGHT ♦ 17 grams



LOGIC HEADSETS & FORKS

Upper bearings of headsets don't wear out, but lower bearings do. That's because nearly all impact forces work against the lower bearings. The upper bearings work mainly as a keeper. That's why Tom Ritchey designed the Logic Headsets. Oversized 3/16" bearings on the bottom increase the strength by substantially increasing the amount of load-bearing surface area. To balance the smaller load requirements on the top, Logic uses 1/8" bearings which also reduce needless weight. The result is a headset that has the strength of an oversize headset while actually reducing the weight of a standard size headset. Another example of Ritchey winning by design.



LOGIC COMP HEADSET

You can't find a stronger, lighter headset! That's why so many top pros choose the Logic Comp headset for top performance on the road and off.

- STACK HEIGHT ♦ 33mm
- CONSTRUCTION ♦ 1/8" top bearings, 3/16" lower bearings, chromoly steel bearing, precision polished races
- LOCKNUT ♦ duraluminum
- SIZING ♦ 1" — 24 tpi, Eng (30.2, 26.4), JIS (30.0, 27.0)
- COLOR ♦ black cp
- WEIGHT ♦ 110 grams



LOGIC HEADSET

The Logic Headset has the same world championship winning design as the Logic Comp at a more affordable price.

- STACK HEIGHT ♦ 33mm
- CONSTRUCTION ♦ 1/8" top bearings, 3/16" lower bearings, high quality steel races
- LOCKNUT ♦ steel
- SIZING ♦ 1", 1-1/8" (OS), 1-1/4" (OS)
- COLOR ♦ satin cp
- WEIGHT ♦ 130 grams (standard 1"), 140 grams (1-1/8" OS), 145 grams (1-1/4")



Seeing another opportunity for design improvement, Tom uses his proven philosophy of strategic strength-placing and fat trimming to make the Logic Fork. The Logic Fork uses the world's first Force Directional butted steerer—thicker on the front and back, and thinner on the sides. It's stronger than conventional steerers where it needs to be, but overall it's lighter. Then Tom designed big 27mm triple butted fork blades, which make the Logic Fork track like no other lightweight fork in the world. In fact, the Logic fork carried a Ritchey rider to victory in the 1989 NORBA World Championships. In 1990, half the pro/elite cross-country medals at the World Championships were won with Ritchey Logic Forks. With Logic, you get proven performance and proven durability. **New for '92 is the "Prestige" Logic Fork!**

- MATERIAL ♦ 4130 chromoly
- STEERER ♦ force directionally butted
- FORK BLADES ♦ 27mm round, quad butted, BIG (600 R) radius curve
- OFFSET ♦ 1.8"
- SIZING ♦ 1", 1-1/8" (OS)
- FINISHES ♦ chrome, black chrome, raw
- THREAD ♦ 1"-1x24 tpi, OS 1-1/8x26 tpi
- LENGTH ♦ 40mm thread with 25mm slot
- WEIGHT ♦ 700 grams (127mm steerer)

STEERER LENGTH	HEAD TUBE LENGTH	APPROX. WEIGHT
127mm	75-90mm	700 grams
140mm, (150mm-OS)	85-100mm, (95-110mm-OS)	715 grams, (740 grams)
165mm, (175mm-OS)	100-130mm, (110-140mm-OS)	730 grams, (755 grams)
190mm, (200mm-OS)	135-155mm, (145-165mm-OS)	745 grams, (770 grams)
215mm	155-180mm	760 grams
240mm	180-205mm	775 grams

TUBING & DROPOUTS

Frame tubes rarely fail in the middle. They usually fail at the ends near the welded joints. This was the original motivation behind Tom Ritchey's Logic Frame Tubing. Logic tubing is differentially double and triple butted—it thickens at the ends with a shorter and stronger butting. This design lets the tube withstand the concentrated heat of TIG welding and the rigors of front-end abuse. This construction also allows a much longer "thin" area, reducing weight significantly. These Ritchey designed, Tange manufactured tubes allow the building of the lightest chromoly frames in the world (3.8 lbs., 19" size), frames that are also strong enough to carry pro riders to three of the top six pro/elite medals at the 1991 World Championships. This year Ritchey introduces a full range of new Logic tubing, including mountain, road, and hybrid/cross tube sets (Manufactured by **TANGE**).

LOGIC TUBESETS

Tom Ritchey *steals* the world! Ritchey-designed Logic tubing has proven to be the best performing steel tubing in the world, with the results to prove it: 1991 World Cross-Country Gold and Silver medals, 1990 World Cross-Country Silver and Bronze medals, 1989 NORBA World Champion.

MOUNTAIN

- ◆ LOGIC PRESTIGE PRO "WCS"
(Intended use: pro competition, project bikes)
- ◆ LOGIC PRESTIGE COMP
(Intended use: competition)
- ◆ LOGIC EXPERT—seamless crmo
(Intended use: competition, performance riding)

CROSS

- ◆ LOGIC CROSS—crmo
(Intended use: hybrid, cross, and fitness bikes)

ROAD

- ◆ LOGIC ROAD PRESTIGE
(Intended use: road racing, time trials, triathlons)



NEW LIGHTWEIGHT CRMO BB SHELL

Custom drawn, seamless CrMo, 2.1mm thick (.082 in), precision-machined and threaded. With or without pre-drilled vent holes. Approximately 80 grams lighter than conventional shells.

CRMO REINFORCED SEAT-COLLAR

Precision CNC machined lightweight seat-collar as used on the P-22. Length is 1.9 in. with .3 in. tube insertion. Made for 27.0 seatpost.



LOGIC DROPOUTS

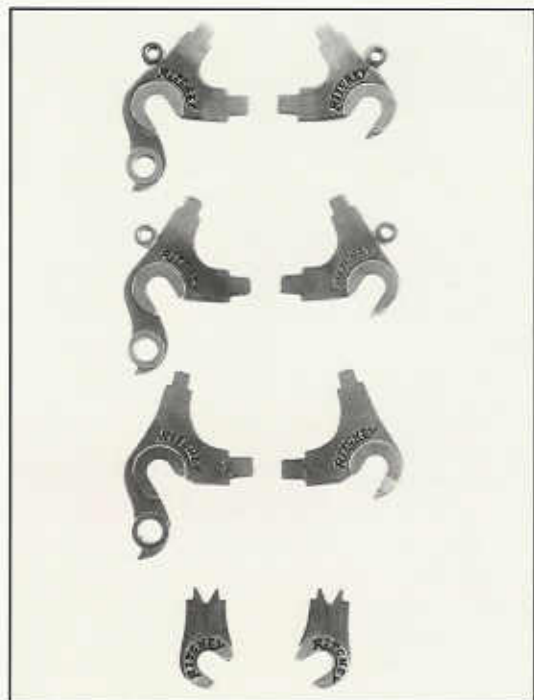
Logic features finally come to dropouts. To match his tube sets, Tom Ritchey designed a lightweight, high-performance set of dropouts with these features:

REAR VERTICAL DROPOUTS

- ◆ cold forged for strength and durability
- ◆ designed over axle center derailleur position gives optimal chain wrap
- ◆ half moon CS and SS tange allows for off-center slotting for better chain/cog clearance with additional strength of brazed surface area
- ◆ 2-3mm shorter derailleur hanger, reducing mass and weight not needed on modern mountain and road bikes with slant parallelogram SIS index derailleurs
- ◆ SS/CS angles: 53° and 62° mountain design, 74° road bike design

FRONT DROPOUTS

- ◆ wide width designed for 16-19mm fork blade ends
- ◆ cold-forged for strength and durability
- ◆ unique weight saving cut away also allows for improved heat-up





"Ritchey products fit my style, just what's essential to win, and nothing else."
Ritchey Team rider Ruthie Matthes, 1991 World Champion.

For the past 20 years, I've built, ridden, and raced bicycles. Cycling has enhanced the quality of my life with a never-ending influx of fun, thrills, and fitness. That's probably why I enjoy designing and creating new and better performing components for bicycles. I hope that my exciting new line of components can make your bicycling experience a better one.

— TOM RITCHEY



"I have offers to ride everything, but I choose Ritchey because it is the best."
Ritchey Team rider Thomas Frischknecht, Silver Medalist, 1991 World Championships



"In the heat of a race, equipment is the last thing on your mind. It must be light, strong, and reliable. Ritchey Components are the difference between winning and losing."

Tim Gould, Peugeot rider, 1991 Winner of two mountain bike World Cup races.



"I've been using Ritchey tires for years and I know from experience that the new Z-Max has the best tread design of any tire out there."

Mike Kloser, Look Peugeot rider.

"I prefer the Ritchey Road Stem over the standard alloy ones because it's lighter and doesn't flex when I'm sprinting."

Bobby Julich, Ritchey Team rider, U.S. National Team, 5th overall Tour DuPont.



— First Place 1990 Norba National Championships in Big Bear and Georgia.
— First Place 1990 National Downhill Championships won on MEGABITES.
Cindy Whitehead.



LOOK TO THESE LEADING BIKE COMPANIES WHERE RITCHEY COMPONENTS ARE USED FOR PERFORMANCE AND VALUE

Allsop	Concorde	Heavy Tool	Look	Novara	Raleigh	Sunn
Alpinestars	Emery	Iron Horse	Mammoth	Offroad	Rocky	Supergo
BCA	Extreme	Jamis	Marin	Panasonic	Mountain	Univega
Bianchi	Fila	K2	Miyata	Paramount	Ross	Urkauf
Bike Tech	Fuji	Kastle	Mondia	ParkPre	Schwinn	Veclair
Bridgestone	GT	Kestrel	Muddy Fox	Pegasus	Scott	
Cannondale	Giant	KHS	Nishiki	Peugeot	Shasta	
Cinelli	Haro	Kuwahara	Norco	Quantum	Starway	

CUSTOM BUILDERS

Basso	De Rosa	Masi	Salsa
Boulder Cycles	Ibis	Moore	Scapin
Brave	Klein	Mrs. Goat	Serotta
Breezer	Litespeed	Mt. Evans	Silingardi
Brodie	Mandrite	Olmo	Tesch
Bruce Gordon	Manitou	Oris Guy	Wojcik
Cilo	Marone	Potts	Zinn
Colnago	Merlin	Rossin	

HOW TO GET QUALITY RITCHEY COMPONENTS

WORLD HEADQUARTERS
RITCHEY DESIGN
1326 Hancock Street
Redwood City, CA 95061
Tel: (415) 368-4018
Fax: (415) 368-0840

RETAIL CONSUMERS
Quality Ritchey Components can be found as upgrade and replacement parts in performance oriented bicycle shops worldwide.

BICYCLE DEALERS
If you would like to place an order for Ritchey Components, contact your usual bicycle parts distributors. If you are unable to locate a Ritchey Distributor, contact a regional Ritchey office.

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