

BOB GIRVIN'S PRO-FLEX SUSPENSION BICYCLE DESIGN CREED:

Design suspension systems for Lobikes - not motorcycles. A mountain bike isn't a motorcycle. It doesn't go as fast, jump as high, or have to handle as much HP. However, a mountain bike does have to resolve the specific design problem of pulsating rider pedal forces affecting the suspension. PRO*FLEX has a patented pivot point geometry that resolves the typically undesirable pedal force / spring force intéraction into a positive result providing greater efficiency and traction.

Improvements should logically **L** • build on experience: You can't skip steps. Only through years of development and experience in the market can a product truly improve with confidence. Unlike other companies who radically jump from suspension bike concept to concept each year, hoping to hit the right trend. PRO•FLEX performance directly results from a logical progression over five years.

Neep it as simple as possible: All PRO•FLEX use a structurally efficient design. Minimal material, minimal complexity. With suspension bike design, the simple yet effective path has proven to have fewer 'bumps'.

Keep it light: A full suspension bike HAS to be light enough to ride uphill. That's why PRO.FLEX feature components and suspension systems that are light enough not to be a drag - literally!

Design the bikes to be userofriendly: All PRO•FLEX are designed to require minimal maintenance. And designed to be easily serviced.



aided finite element analysis to ensure even the most superlight PRO*FLEX suspension frames can withstand punishment on the toughest trails.



"Evolution always

... providing us more, and less, thanks to the law of natural selection.

Presenting the PRO•FLEX 954: Proof that the best engineering advances are always the product of logical evolution and improvement — in this case, PRO•FLEX five years of full-suspension bike experience. The 954 gives you even more of the high performance you've come to expect from PRO+FLEX. More travel

More rear wheel travel, that is - thanks to the all new PRO•FLEX Generation 5 Cantilever rear suspen-

Modified spring geometry and a new aluminum compression strut provide the 954 with a full three inches (7.5cm) of rear wheel travel. Now you can handle the most technical trail with ease.

And the new externally adjustable, patented twopiece INTER-DAMP™ elastomeric foam spring system improves both the progressive spring compression and return damping; giving the Generation 5 system smooth





suspension performance that rivals even the most complex hydraulic systems.

...and less hassle! But with the 954, superior full-suspension

performance doesn't come at the cost of using heavy, unproven, complex, or high maintenance suspension systems.

With PRO•FLEX there's no air or oil to leak. Less complexity. A breeze to maintain. Less hassle to adjust on the trail. Less weight than complex

hydraulic designs.... well, you get the

But to REALLY get the idea, just visit a PRO•FLEX dealer and test ride a 954.



PRO·FLEX 954

Girvin Vector Suspension Fork w/2.1 inches dual stage travel. FRONT SUSPENSION: INTER+DAMP^{PM} Microcellular Foam, externally adjustable REAR SUSPENSION: PRO•FLEX Generation 5 Long Travel, 3.1 inches dual stage INTER+DAMPTM Microcellular Foam, externally adjustable. FRAMESET: Double butted, heat treated Alcoa* 7005 Aluminum main triangle with butted Cromoly LT swingarm. Tange aluminum A-Head Set, oversized. WHEELS: Shimano XT 32 spoke rear hub, 11-28 8-Speed freehub, Ringle 28 spoke

front hub, Campagnolo A-Tek rims, DT butted spokes & alloy nipples, Panaracer Keylar Hard Core Smoke & Dart tires, Ritchey Cloth rim strips, Ringlé Titanium QR Skewers

DRIVETRAIN: Shimano XT Cranks w/22/34/42 chainrings, 8-speed Rapid Fire Plus Shifters, XT Deraileurs, Syncros Gorilla Titanium BB., Shimano SPD 737 Pedals, Sedis Chain.

BRAKES: Shimano XT

SADDLE/SEATPOST: Selle Italia Flite Transalp. Syncros Pro Post. HANDLEBARS/STEM: Ritchey Complite Handlebars. Girvin Vector Stem. Onza Bar Ends. COLOR: Polished Aluminum Main Triangle, Black Rear Triangle.

SIZES: 16", 18", 20"

Rely on the Full Suspension Pros

PRO-FLEX





Offroad Sport led the industry in introducine mountain bikes for smaller riders. Today, we continue the tradition by offering full suspension bikes in 14



1990

The first Offroad Pro*Flex gains worldwide recogni tion as the first production full-suspension bicycle.



the world's first full-suspen sion trebbing hybrid hibe



1992

world praise Offroad Pro*Flex Generation 3 as the most efficient, lightweight full-suspension bikes



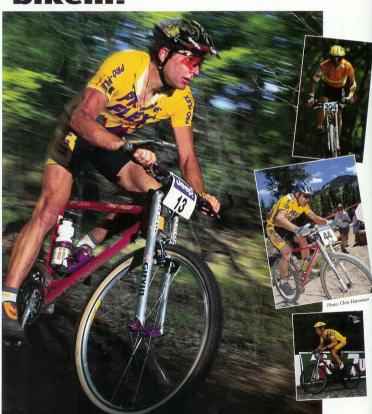
INTER-DAMPTM elastomeric foam string technology for improved travel



evolution of the suspension bike continues to new higher levels with the 954.

"It's NOT just a downhill bike...!"

PRO-FLEX full suspension is an advantage on the climbs too! Just ask the guys on this page. From Moab to Metablief, Team PRO-FLEX proves that full-suspension blikes offer true performance advantages for top level inders in the most grueling world cup cross country races. In case you haven't heard, full suspension isn't just for downhill anymore. Let our new 849 prove it to YOU.



Recause the new PRO•FLEX 854 is a cross country light 26.5 lbs., cross country racers can get the efficiency, traction, handling and comfort advantages of full-suspension - without paying a weight penalty!

Featuring the Girvin Vector fork and Generation 5 rear suspension, the 854 is an integrated system designed for balanced, superior performance front and rear - whether climbing or descending!!

Ask the other experts - the guys who test ride ALL the bikes for a living!

MOUNTAIN BIKE ACTION - "Climbing was where the hike really shined. We never noticed any bobbing,, no matter what year we were in."

PEDAL MAGAZINE - "...the finest suspension bike I have ever ridden."

BICYCLING - "PRO • FLEX has dialed the pivot point so the bike feels like a plush suspension model even while climbing like a rigid one."



Far left: PRO*FLEX warrior Bob Roll (USA) recorded several top 10 placings in 1993 US races. Way to go BOBKE!

Top left: Stefano Giuliani (ITALY) piloted a PRO*FLEX to a '93 Italian Cup race victory.

Middle left: Bernard Vermette, (CANADA) showed a mountain goat named Overend his rear wheel at the Mammoth GRUNDIG world cup race. Proof that PRO•FLEX is a benefit on the climbs!

Bottom left: Robin Seymour, (IRELAND) has been a winner and regular top 5 finisher in Britain's toughest races in 1993

Right: From Hoffalize to Paris-Roubaix, the VERTEX/PRO*FLEX TEAM (NETHER-LANDS) raced a full season of tough races without a failure!



FRONT SUSPENSION: Girvin Vector Suspension Fork w/2.1" travel, externally adjustable REAR SUSPENSION: PRO*FLEX Generation 5, 2.5" Travel, dual stage INTER*DAMP™ micro-

cellular Foam, externally adjustable. FRAMESET: Double butted, heat treated Alcoa® 7005 Aluminum main triangle

with butted Cromoly LT swingarm. Tange aluminum A-Head Set, oversized. WHEELS: Shimano LX 32 spoke rear hub, 11-28 7-Speed cassette, LX 32 hole front hub, Sun CR16 rims, DT butted spokes w/alloy nipoles. Onza Kevlar Porc

Il Racing Tires, Ritchey Cloth rim strips. DRIVETRAIN: Shimano LX Cranks w/24/32/42 chainrings, LX Rapid Fire Plus

Shifters, XT Derailleurs, Sakae alloy pedals w/Girvin Toe Clips, Sedis Chain. BRAKES: Shimano LX SADDLE/SEATPOST: Vetta SL Leather w/ Vanadium Rails, Kalloy Alloy.

HANDLEBARS/STEM: Ritchey Complite Handlebars. Girvin Vector Stem. Onza Bar Ends. COLOR: Race Team Red.

SIZES: 14", 16", 18", 20"

Rely on the Full Suspension Pros

"Hey Bob! What'll a PRO•

Bob Girvin: "The secret behind

PRO•FLEX rear suspension performance is the oa patented location of the rear swingarm pivot point. This location provides a positive result from the pedal force /

spring force interaction - allowing the suspension to work when pedaling under normal riding conditions - without any of the negative side effects inherent in other pivot point locations.

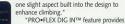
A pivot placed too high will cause rider pedal forces to deactivate the suspension - causing

'suspension lockout' - Suspension lockout can be felt in a kickback at the pedals — a sensation called 'pedal feedback.'"

> "In order to get around this problem, many high pivot rear suspension designers use excessive preload to ren-

der the suspension inactive for all the but the largest bumps - but it kind of defeats the purpose of having rear suspension if it doesn't work when you pedal, doesn't it?"

"Because PRO•FLEX rear suspension pivot is in the correct location, the suspension works all the time. whether climbing or descending, pedaling or coasting. PRO•FLEX is an ACTIVE sus-



better traction on steep climbs at maximum pedal pressure. When climbing steep grades in the granny gear, pedal forces interact with the spring, causing a slight opening of the spring, improving traction at precisely the instant the rear wheel would tend to skip or break loose





pension, and unaffected by rider pedaling forces, except in

Bob Roll: "I'm no engineer, but I know what advantages PRO•FLEX rear suspension gives me..."

"It's the perfect balance between stiffness and absorption. When I pedal through rough terrain, it

doesn't bounce all over the place, doing the 'buckin-bronco'."

"It doesn't flex side to side - important for a knarly cave man chasing down competitors - or even weekend ridin' buddies."

"It works on descents for sure, but also absolutely SHREDS on the climbs by helping me dig in, hook up, and FLY."

"Because it works so smoothly and gives such a balanced platform to work with, sometimes I forget it's working - that is until I try à rigid rear end and have to hang on for dear life.'

"Besides, I wouldn't even consider racing with anything but the BEST (and the coolest)."

Rely on the Full Suspension Pros

FLEX really do for me?"

Bob Girvin:

"By using lightweight aluminum legs, and a linkage suspension system, the Girvin Vector fork is designed to be structurally more efficient than telescoping fork designs; not to mention a super lightweight 2 lbs. 14 oz!"

"The link design uses a curved axle path movement to put initial wheel travel more in line with bump forces — thus allowing Vector to be more sensitive to bumps big and small, yet also more resistant to activation by

rider pedaling forces."
"It's easy to adjust!
Vector's INTERDAMP™
elastomer spring systems has

vector's INTERDAMP™
elastomer spring systems has
an external preload adjuster.
And different
springs are avail-



able to change the spring rate of compression.
You can even custom tailor the axle travel curve to provide either more resistance to pedal pogo, or more sensitivity to the smallest bumps!

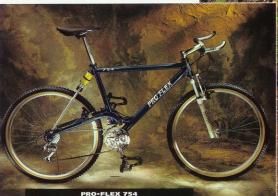


Bob Roll: "My Vector steers as precisely as a rigid fork would, and at the same time it soaks up the bumps as well as a telescoping fork so that with any line I have to take, my steering "feel" is right on."

"There's none of that brake-pad scrubbin' wheel flop you see in telescoping fork designs which is one thing you. DON'T need while trying to drop your friends on nasty climbs."

"I don't have to worry about blown seals, leaking oil, falling air pressure, or making a mess on the living room rug. Life has too much to offer besides sitting in my hotel room or garage rebuilding some forks."

"And at only 2.9 lbs,
Vector doesn't give me
unnecessary weight to haul up
the mountains! It just lets me 'ROCK AND ROLL!'"



FRONT SUSPENSION: Girvin Pro+Forx, with dual stage elastomer and spring. 2" travel REAR SUSPENSION: PRO*FLEX Generation 5, 2.5" Travel, dual stage INTER*DAMP1M Microcellular Foam spring, externally adjustable.

FRAMESET: Double butted, heat treated Alcoa® 7005 Aluminum main triangle with Cromoly LT swingarm. Tange alloy A-Head Set, oversized. WHEELS: Shimario STX 32 hole hubs w/11-28T 7-speed freehub, Sun USA CR 16

rims, 15 g. stainless spokes, Panaracer Smoke / Dart tire DRIVETRAIN: Shimano STX Cranks w/42/34/24T chainrings, Shimano STX derailleurs w/ Rapidfire Plus shifters. Sakae alloy pedals w/Ginvin Toe Clips. Sedis Chain.

RRAKES: Shimano STX.

SADDLE/SEATPOST: Vetta SL w/Manganese Rails, Kalloy Alloy micro adjust seatpost

HANDLEBARS/STEM: Zoom 170 alloy handlebars. HL cromoly stem. Onza cromoly bar ends.

SIZES: 14", 16", 18", 20".

Go ahead. Laugh if you want. You won't be alone.

Seems like every time a revolutionary technological advance is made in cycling, the skeptics first doubt it. Then they laugh at it. Finally, they embrace it, and then turn around and scoff at those who haven't yet seen the light.

It was the same with aero bars. With clipless pedals. Indexed shift-

ing. Helmets. Suspension forks... ... and now its the same with rear suspension. Seems like some people still doubt it's advantages for all-around dirt riding performance. Yet the FACTS are, a PRO•FLEX actually makes your rides faster, more efficient -OKAY - MORE FUN! What's that? Proof? Well here's the scientific proof to back it up:

13% more efficiency. No kidding.

Independent tests at the Wake Forest university laboratory conducted by Dr. Michael Berry and published in "Cycling Science" (Spring 1993) have demonstrated that riding a PRO+FLEX full suspension bicycle on a moderately bumpy climb at a constant speed will reduce oxygen consumption by 13% over a rigid bicycle. And more important - the majority of this energy

- not the front!

The reason? 60% of

rider weight is on the rear wheel. Rough terrain shakes the rider - the bike's engine. PRO.FLEX isolates the rider's mass from energy-sapping bump forces to the rear wheel - which allows



hoto: Larry Prosor

PRO·FLEX 554

FRONT SUPPHISON. Fathers Supermion Fork, 2.1° bruel, elathomer is spring system, centrally adjustable, leading asid edging.

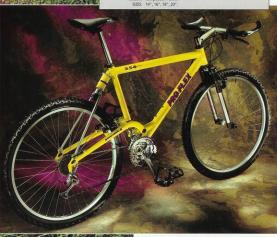
REAR SUPPHISON. PROPHIES Centerator Sp. 2.5° Travel. Data large INTER-DAMENTM

REACHEST from the strength adjustable.

FRANCES

SADDLE/SEATPOST: Vetta saddle, Kalloy alloy micro-adjust seatpost. HANDLEBARS/STEM: Zoom 170 alloy handlebars. HL cromoly stem. Onza Bar Ends.

COLOR: Competition Yellow.



the rider to put energy into forward motion — not reacting to bumps.

The conclusion? "When riding over a bumpy, uphill course, a properly designed rear suspension will significantly decrease metabolic energy expenditure as compared to a non-suspended bike. Over a smooth course, the same suspension system, set up the same way DID NOT cause a change in energy expenditure great enough to be detected in our study."

Dr. Michael J. Berry, Ph D.

"The Effects of a Mountain Bike Suspension System
on Metabolic Energy Expenditure."

The Effects of Mountain Bike Suspension System on Metabolic Energy Expenditure:

	PRO•FLEX Full Suspension	Suspension fork only	No Suspension		
VO ₂ (Oxygen consumpl	2.47 tion in L/min.)	2.59	2.79		
Energy Expenditure (kcals/minute)	12.0 +/- 0.9	12.9 +/- 0.6	13.8 +/-1.0		

PROFILES

Rely on the <u>Full Suspension Pros</u>

This much fun shouldn't be too complicated.



Life's complicated enough!

A PRO-FLEX won't turn your valuable ride time into a wrenching session. Thanks to the proven INTERDAMP*
Foam Elastomer Springs used in every PRO-FLEX, you get high performance suspension without the drawbacks. No leaking air and oil. No need to own a mega tool kit- or for frequent shop overhauls.
PRO-FLEX' pattented INTERDAMP* suspension provides simple, proven reliability...

... oh yeah, and did we mention high performance too?

More travel. Unlike cast elastomer springs, INTER-DAMP™ Microcellular foam springs compress up to 70% of their length, for maximum travel!

patented spring rate. The INTERDAMP"
patented spring system is naturally progressive —
no need for complicated hydraulics to get superior

Better Damping. Thanks to their unique foam structure, INTER-DAMP" springs provide better compression and return damping qualities than normal elastomers.

So why but your air time on anything else?





FRONT SUSPENSION: Fastrax Suspension Fork, 2.1° travel, elastomer & spring system, externally adjustable, leading axie.

REAR SUSPENSION: PRO•FLEX Generation 4, 2° travel, INTER•DAMP™ Microcellular

Elastomeric Foam.

FRAMESET: Tange Infinity tapered wall, cromoly main triangle and cromoly swingarm.

OWNESE: Tange intnity tapered waii, cromoly main triangle and cromoly swingam Tange Steel A-Head Set. WHEELS: Shimano STX 32 hole hubs w/11-28T freehub, Sun USA L-18 Rims,

15g stainless spokes, Ritchey 2.1 Z-Max tires.

DRIVETRAIN: Shimano STX Craniss w/42/34/24T chainnings, Shimano STX detailfeurs w/ Rapidfire Plus shifters. Sakae alloy pedals w/Girvin Toe Clips, Sedis Chain.

BRAKES: Shimano STX

SADDLE/SEATPOST: Vetta Synthetic Leather, Kalloy Alloy micro adjust seatpost.

SAIDDLE/SEATPOST: Vetta synthetic Leather, Kalloy Alloy micro adjust seatpost. HANDLEBARS/STEM: Zoom 170 alloy handlebars. HL cromoly stem. Onza Bar Ends. COLOR: Amethyst...

SIZES: 14", 16", 18", 20".

PRO•FLEX Arcadia

FRONT SUSPENSION: Fastrax Suspension Fork, 2.1" Travel, elastomer & spring system, externally adjustable, leading axle.

REAR SUSPENSION: Sport Flex, INTER•DAMPIN Microcellular Foam, 1.75" Travel.
FRAMESET: Tange Infinity tapered wall cromoly main triangle and rear triangle.
TS sealed oversized head set.

WHEELS: Shimano Alivio 32 spoke rear hub, 11-28 T 7-speed freehub, Alivio 32 spoke front hub, 14g spokes, Sun USA L-18 Rims, Ritchey Z-Max 2.1 Tires.

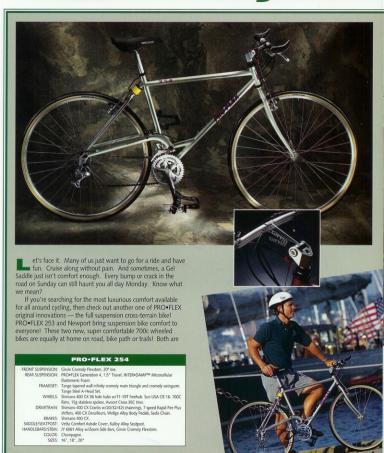
DRIVETRAIN: Shimano Alivio cranks w/24/32/42T Chainrings, 7-speed Rapid Plus Shifters, Alvio Front & Rear Denalleurs, Wellgo alloy pedals, Sedis chain. BRAKES: Shimano Alivio.

SADDLE/SEATPOST: Vetta SL Synthetic Leather, Kalloy Alloy Seatpost. HANDLEBARS/STEM: JY 6061 Alloy Handlebar/JY Cromoly Stem. COLOR: Metallic Blue or Purple.

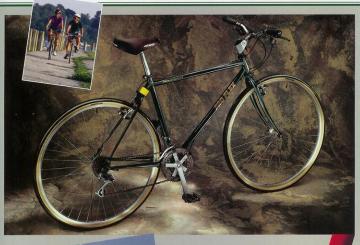
SIZES: 16", 18", 20".



Make every ride



smooth sailing.



"You begin to wonder if this lan't the way all bikes should feel, especially those designed for born riding... The concept CYCLING."

fully equipped with Avocet Cross tires. Full Shimano 'Ride Light' Groups. And Vetta comfort saddles.

And both models combine the Girvin Flexstem with PRO•FLEX rear suspension — turning any rough stuff into the smoothest sailing you'll ever experience.... ...well, on two wheels at least!

PROFLEX Rely on the <u>Full Suspension Pros</u>

PRO•FLEX Newport

FRONT SUSPENSION: Girvin Cromoly Flexstern, 20th rise.

REAR SUSPENSION: Sport Flex, INTER+DAMPTM Microcellular Foam, 1.5" Travel. FRAMESET: Tange Straight Gauge cromoly main triangle and rear triangle.

TS sealed oversized head set.

WHEELS: KK 36 hole hubs w/Shimano 14-28T Hyperglide freehub. Sun USA L-18

WHEELS: Kit as note indow w/simmano 14-281 Hyperguse treenud. Sun USA L-18 alloy rims, 14g spokes, Avocet Cross 700C Tires.

DRIVETRAIN: Shimano Altus C50 Cranks w/28/38/48 chainrings, Altus Uni Lever Shifters,

VP Steel Cage Pedals, Sedis Chain. BRAKES: Shimano Altus C50 Alloy Brakes.

SADDLE/SEATPOST: Vetta Comfort Saddle w/Lycra Cover, Kalloy Alloy Seatpost.

HANDLEBARS/STEM: JY Alloy Handlebar w/38mm rise, Girvin Flexstem. COLOR: Forest Metallic Green.

SIZES: 16°, 18°, 20°

"We now pause to give you a Frame of reference!"

...THE frame of reference for full-suspension performance. Both the PRO•FLEX 954 and 854 are available separately as frameset only so you can customize them with any trick componentry you want.

(Girvin Vector fork pictured sold separately).

PRO-FLEX

Palu on the Full Suspension Pros





Models	Frame Size	A	В	С	D	E	F	G	H	J	K
954*, 854,	14"	520	74°	71°	31	426	38	1029	731	355	90
754, 554	16**	550	74°	71°	31	426	38	1050	758	405	100
	18"	580	74°	71°	31	426	38	1068	786	458	100
	20"	600	74°	71*	31	426	38	1083	824	509	100
454,	14"	520	75°	71°	31	426	38	1033	730	355	90
Arcadia*	16"	550	73°	71°	31	426	38	1046	755	407	100
	18"	580	73*	71°	31	426	38	1058	783	458	10
	20"	600	73°	71°	31	426	38	1073	821	508	125
254,	16"	538	75°	69°	60	420	45	1059	760	406	100
Newport	18"	565	75°	70°	60	420	4.5	1071	785	457	100
	20"	575	75°	72°	60	420	45	1062	826	508	125

^{* 954 &}amp; Arcadia available in 16", 18" and 20" sizes only,

All measurements in mm unless noted, 25.4mm = 1 inch.
 All measurements are center-to-center.

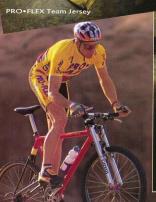


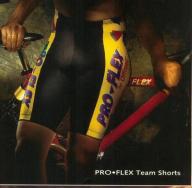
"Now get out there and Flex YOUR limits..."

Only please do it in style, with some PRO*FLEX team duds. This top quality, full color, sublimated racing apparel is the official team clothing used by Bob Bobke Roll and the entire PRO*FLEX International Racing Team. Sizes S-M-L-XL. Available exclusively through your local PRO*FLEX dealer.









Belgium, Netherlands,

Luxembourg
Vertex Cycle Systems

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PROFLEX "Full Suspension" Mountainbikes

VERK. PRIJS incl. btw

MODEL/TYPE

PROFLEX ARCADIA

F. 1.898,-

PROFLEX 454

2.540,-

PROFLEX 554

2,995,-

PROFLEX 754

3.595.-

4.390.-

PROFLEX 854

PROFLEX 954

6.995.-

PROFLEX FRAMESET 854

1.295.-2.150,-

(zonder v.vork) PROFLEX FRAMESET 854 (Incl. single elast. VECTOR compl.)

PROFLEX FRAMESET 954

1.995,-

(zonder v.vork) PROFLEX FRAMESET 954 (incl. single elast. VECTOR compl.)

" 2.850,-

PROFLEX "Full Suspension "Hybrides"

MODEL/TYPE

PROFLEX 254 (Incl. spatborden en drager) 2.650,-

PROFLEX NEWPORT (Incl

1.680,-

ension Pro ely on ti