


manitou



Manitou Technology



Hex-Lock Thru Axle

System Advantages
- Locks Right & Left Fork Leg to Limit Asymmetric Displacement to Maximum Fore\Aft and Torsional Stiffness
- U.S. Patent #US6412803



Hollow Crown

- Technical Advantages
- Overall Fork Weight Reduction
- Advanced Fork Design Application: Optimal System Stiffness to Yield
- U.S. Patent #US6095542



Front Suspension Matrix

PERFORMANCE TRAIL	CROSS COUNTRY	CROSS COUNTRY RACE	HI PERFORMANCE TRAIL	ULTRA HIGH PERFORMANCE. TRAIL	ALL MOUNTAIN ENDURO	DH RACE
DRAKE	R7	R7 MRD	MINUTE / MINUTE 29ER	MINUTE MRD		DORADO MRD

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Technology

SEMI-BATH WITH EVIL GENIUS SEALS

Semi-Bath lubrication and Evil Genius seals have proven to dramatically increase the durability and service life of our forks. High quality Evil Genius seals, originaly developed for motorcycle suspension, decrease stiction and retain our semi and open bath lubricants inside the legs.

REMOTE CONTROL TRIGGER (RCT)

Available for use in combination with our Absolute fork damper or with our lockout-equipped rear shocks, the all-new RCT takes up a minimal amount of handlebar real estate and the same lever can be mounted on either the right or left side of your cockpit.

ONEPOINTFIVE

The big news this year is fully capable long travel 203mm single clamp forks with the 1.5 steerer. That means you can pinch pounds on your downhill or freeride bike without having to worry about sacrificing stiffness. Onepointfive designs are 44% stronger and 138% stiffer at a similar weight to 1 1/8" designs.

HEX-LOCK THRU AXLE

Our patented hex axle locks the lower legs in place, eliminating rotation around the axle. This provides unsurpassed stiffness with standard hubs and parts.



Spring Technology



INFINITE TRAVEL (IT) ADJUST

IT (our lightest-ever air spring system) is the best system for climbing and descending. A flip of the lever lowers the fork for climbing, then hit it again at the top for long travel descending. The systems works by transferring air between the positive and negative air chambers when the handlebar-mounted travel adjust lever is depressed. This allows the fork to be set anywhere in its travel range with no spring rate change.



NOBEL AIR

Designed for superior performance at an ultra lightweight, Manitou's highest end air system uses an auto-adjusting air negative spring. Inflation is done from the bottom of the leg. Nobel is currently used exclusively in MRD forks.



MANITOU AIR RESPONSE SYSTEM (MARS) AIR

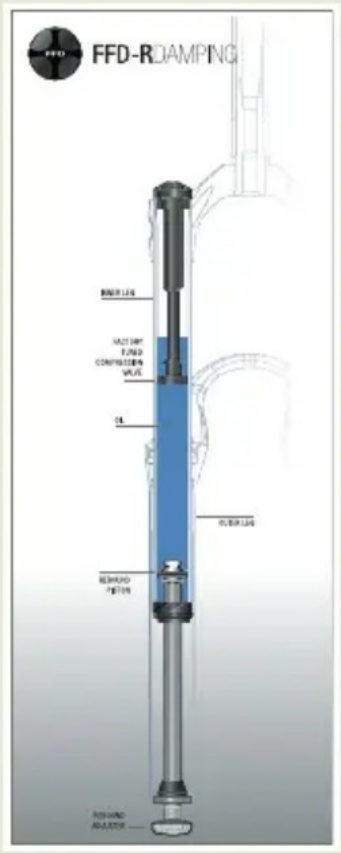
Our tried and true MARS system is a hybrid air/coil positive spring for an amazingly supple and active overall feel. Very small or large riders will need to use the correct hybrid spring rate for optimal performance for their weight.



TRAVEL STABILIZATION (TS) AIR

Many air systems increase or decrease in travel greatly as the pressure in the system is adjusted. TS Air minimizes this effect, resulting in a more accurate ride height, travel, and hence handling characteristics for a given bicycle design.

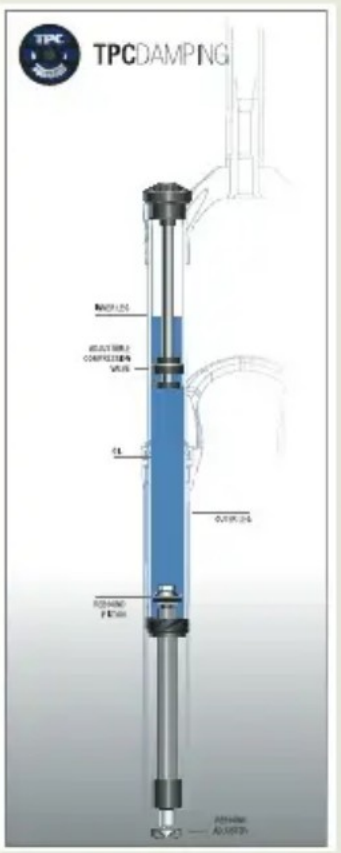
Fluid Flow Damping and Twin Piston Chamber Damping



FFD

- Fixed Flow Area
- Speed Sensitive System (Flow Velocity)
- Velocity Squared Damping Force

System Advantages:
Cost
Durability
Performance



TPC

- Traditional Shim\Piston Damping Technology
- Speed Sensitive System (Flow Velocity)
- Independent Compression\Rebound Circuits
- High Energy Absorption with Low Peak Force (Reduced Rider Impact)

System Advantages:
- Highly Tuneable
- Linear Damping Force
- Reliable Proven Design
- TPC+
- Dual Compression Piston (Energy Dependent System)

TPC Plus Position Activated Damping and Absolute Platform Damping



TPC Plus

- Dual Compression Piston (Energy Dependent Systems)

3-Dimensional Damping

- High Speed – Low Displacement (Small Bump Compliance
- Low Speed – Medium to Large Displacement (Maximum Bump Absorption)
- Secondary Piston Engagement Initiates with the product of Velocity x Displacement

System Advantages

- Extreme Tuneablity
- Self Compensating High & Low Speed Circuitry (Smart Damping)
- Durable Proven Technology



Absolute

- Pressure Dependent System
- Switches Between Velocity Dependent to Pressure Dependent Based on Adjuster Position
- Achieves Lock-Out Feel at Maximum System Pressure Position

System Advantages

- Highly Adjustable (Incremental)
- Staged Platform for XC\All Mountain Applications
- Low Friction System\ Low Seal Drag

DRAKE



DRAKE SPECS

- Performance trail Fork 80mm, 100mm, 130mm Travel
- 32mm Aluminum Stanchions
- Three Models: Good, Better, Best
- Key Technologies – FFD, TPC, Absolute Dampers
- Internally Adjustable Travel
- Weight Target: 4.2 Lbs. (1904.7g)
- Available in 29er with 41mm and 48mm offset crowns



DRAKE

	COMP	ELITE	SUPER	SUPER AIR
Travel	80, 100, 130 Internally Adj.	80, 100, 130 Internally Adj.	80, 100, 130 Internally Adj.	80, 100, 130 Internally Adj.
Wt. Lbs	4.2	4.2	4.2	4.0
Wt. Grams	1904.7	1904.7	1904.7	1814.0
Spring	Coil	Coil	Coil	Air
Steerer	1-1/8th Steel	1-1/8th Steel	1-1/8th Steel	1 1/8th Steel
Damping	FFD	Adj. TPC	Absolute Platform Damper	Absolute
Adjustments	Non-Adj. FFD	Adjustable TPC	Adjustable TPC	Adjustable TPC
Stanchions	32mm Gold Ano Al	32mm Gold Ano Al	32mm Gold Ano Al	32mm
Casting	Magnesium	Magnesium	Magnesium	Magnesium
Axle	V-Brake & Thru Axle	V-Brake & Thru Axle	V-Brake & Thru Axle	V-Brake & Thru Axle
Crown	Hollow Al	Hollow Al	Hollow Al	Hollow Al
Lubrication	Semi-Bath	Semi-Bath	Semi-Bath	Semi-Bath
Seals	Evil Genius	Evil Genius	Evil Genius	Evil Genius
Wheel Size	26”	26”	26”	26”
Fork Offset	41.28	41.28	41.28	41.28
Max Tire Dia (mm)	686	686	686	686
Disc Mounts	Post	Post	Post	Post
Disc Size	210mm Max	210mm Max	210mm Max	210mm Max
No Boss	Only	Only	Only	Only
Ride Height (mm)	456/476/508	456/476/508	456/476/508	456/ 476/ 508
Color	Black/ Silver	Black/ Silver	Black/ Silver	Black/ Silver
Options	Aluminum Steerer QR Hex Axle	Aluminum Steerer QR Hex Axle	Aluminum Steerer QR Hex Axle	Aluminum Steerer QR Hex Axle



R7



R7 SPECS

- Ultra High Performance XC Fork
  80mm, 100mm Travel
- 30mm Drawn Aluminum Stanchions
- 100% Machined Aluminum Internals
- Absolute or TPC Technologies and
  MRD
- Adjustable Rebound with Improved
  Adjustment Range
- Weight Target: 2.73 Lbs. (1238.1g)



R7

	ELITE	SUPER	MRD ABSOLUTE
Category	Ultra Lightweight High-End 30mm	Ultra Lightweight High-End 30mm	Ultra Lightweight High-End 30mm
Travel	80mm or 100mm	80mm or 100mm	80mm or 100mm
Wt. Lbs	3.3 (80), 3.4 (100)	3.3 (80), 3.4 (100)	2.76 (80), 2.8 (100)
Wt. Grams	1516 (80), 1557 (100)	1516 (80), 1557 (100)	1253 (80), 1271 (100)
Spring	TS Air	TS Air	No Oil
Steerer	1-1/8th Blue Al	1-1/8th Blue Al	1-1/8th Blue Al
Damping	TPC	Absolute Damping	Lightweight Cartridge Absolute Platform Damper
Adjustments	Rebound, Air, Platform	Air, Rebound, Compression	Air, Rebound, Compression
Stanchions	30mm Gold Al	30mm Gold Al	30mm Gold Al
Casting	One piece Reverse Arch (RA) Mag	One piece Reverse Arch (RA) Mag	One piece Reverse Arch (RA) Mag
Axle	Std	Std	Std
Crown	Deep Bore Hollow	Deep Bore Hollow	Deep Bore Hollow
Lubrication	Semi-Bath	Semi-Bath	Semi-Bath
Seals	Evil Genius	Evil Genius	Evil Genius
Wheel Size	26”	26”	26”
Disc Mounts	Post	Post	Post
Disc Size	180mm Max	180mm Max	180mm Max
No Boss	Option Includes Brake Bosses	Option Includes Brake Bosses	No Boss
Ride Height (mm)	456/476	456/476	456/476
Color	Primer	Candy Red	Candy Red
Options			TPC or ABS
Compatible Rear Shock Models	S-Type, Swinger Air X3	S-Type, Swinger Air X3	S-Type, Swinger Air X3



Minute



MINUTE SPECS

- Ultra High Performance Trail Fork
  100mm, 120mm and 140mm Travel
- 32mm Drawn Aluminum Stanchions
- 100% Machined Aluminum Internals
- Absolute or TPC Technologies and
  MRD
- Adjustable Rebound with Improved
  Adjustment Range
- Weight Target: 3.1 Lbs. (1405.9g)



Minute

	ELITE	SUPER	MRD
Category	High End Al 32mm	High End Al 32mm	High End Al 32mm
Travel	100mm, 120mm, or 140mm	100mm, 120mm, 140mm	100mm or 130mm
Wt. Lbs	3.8 (100), 4.0 (120), 4.1 (140)	3.5 (100), 3.6 (120), 3.65 (140)	3.2 (100), 3.3 (130)
Wt. Grams	1716 (100), 1821 (120), 1860 (140)	1581 (100), 1626 (120), 1650 (140)	1452 (100), 1530 (130)
Spring	Mars Air	Mars Air	Noble Air
Steerer	1-1/8th Blue Al	1-1/8th Blue Al	1 1/8th Blue Al
Damping	TPC	Absolute Platform Damper	Lightweight Cartridge Absolute Platform Damper
Adjustments	Air, Rebound, Compression	Rebound, Air, Platform	Air, Rebound, Compression
Stanchions	32mm Gold Al	32mm Gold Al	32mm Gold Al
Casting	One piece Reverse Arch (RA) Mag	One piece Reverse Arch (RA) Mag	One piece Reverse Arch (RA) Mag
Axle	Std or Hex	Std or Hex	Std or Hex
Crown	Deep Bore Hollow	Deep Bore Hollow	Deep Bore Hollow MRD
Lubrication	Semi Bath with Evil Genius Seals	Semi Bath with Evil Genius Seals	Semi Bath with Evil Genius Seals
Seals	Evil Genius	Evil Genius	Evil Genius
Wheel Size	26”	26”	26”
Disc Mounts	Post	Post	Post
Disc Size	210mm Max	210mm Max	210mm Max
No Boss	Only	Only	Only
Ride Height (mm)	478/498/515	478/498/515	478/ 508
Color	Black	White	Grayblue
Compatible Rear Shock Models	Swinger Air X3, Swinger Air X4, Evolver ISX-1	Swinger Air X3, Swinger Air X4	Swinger Air X3, Swinger Air X4
Options	29er/ 2 Offsets	29er/ 2 Offsets	



Dorado MRD



DORADO MRD SPECS

- Inverted Aggressive Fork Design
- 203mm of Travel
- Carbon Outer Structure for Stiffness
- 36mm Drawn Aluminum Stanchion
- 100% Machined Aluminum Internals
- Cartridge Based Damping Utilizing TPC+ Technologies
- Independent External High & Low Speed Control
- Adjustable Rebound with Outstanding Adjustment Range
- Weight Target: 6.4 Lbs. (2902.4g)



Rear Suspension Matrix

PERFORMANCE TRAIL	CROSS COUNTRY	CROSS COUNTRY RACE	HI PERFORMANCE TRAIL	ULTRA HIGH PERFORMANCE. TRAIL	ALL MOUNTAIN ENDURO	DH RACE
						REVOX COIL
	S-TYPE AIR		SWINGER AIR		EVOLVE AIR	
RADIUM AIR			SWINGER COIL			
METEL COIL						

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Radium R/ RL



RADIUM AIR SHOCK

- In-Line Performance Air Shock
- Independent Compression & Rebound Adjustment
- Key Technologies – Platform Plus Damping, Lock Out
- Weight Target: 240g

Configurations (RL)	Configurations (R)
152 x 32 (6" x 1.25")	152 x 32 (6" x 1.25")
165 x 38 (6.5" x 1.5")	165 x 38 (6.5" x 1.5")
178 x 40 (7.25" x 1.6") CUSTOM	178 X 40 (7.25" x 1.6")
190 x 44.5 CUSTOM	190 x 44.5
190 x 50 (7.5" x 1.6")	190 x 50 (7.5" x 2")
200 x 50 (7.875" x 2")	200 x 50 (7.875" x 2")
200 x 56 (7.875" x 2.25")	200 x 56 (7.875" x 2.25")
216 x 63 (8.5" x 2.5") CUSTOM	222 x 63 (8.75" x 2.5")

Swinger Air X3, X4



SWINGER AIR SHOCK

- High Performance Trail Air Shock
- Independent Compression & Rebound Adjustment
- Key Technologies – "No Tools" Adjustable Platform Damping, Lock Out
- Shim Based Performance with SPV Option
- Weight Target: 240g

Configurations (RL)

152 x 32 (6" x 1.25")	
165 x 38 (6.5" x 1.5")	
178 x 40 (7.25" x 1.6")	CUSTOM
190 x 44.5	CUSTOM
190 x 50 (7.5" x 2")	
200 x 50 (7.875" x 2")	
200 x 56 (7.875" x 2.25")	
216 x 63 (8.5" x 2.5")	

Configurations (X4)

190 x 44.5	CUSTOM
190 x 50 (7.5" x 2")	
200 x 50 (7.875" x 2")	
200 x 56 (7.875" x 2.25")	
216 x 63 (8.5" x 2.5")	

S-Type SR SPV, SRL, MRD



S-TYPE AIR SHOCK

- In-Line High Performance Air Shock
- Independent Compression & Rebound Adjustment
- Key Technologies – Platform Plus Damping, Lock Out
- Shim Based Performance with SPV Option
- Weight Target: 200g

Configurations (S-TYPE SRL)

152 x 32 (6" x 1.25")
165 x 38 (6.5" x 1.5")
178 x 40 (7.25" x 1.6") CUSTOM
190 x 44.5 CUSTOM
190 x 50 (7.5" x 1.6")
200 x 50 (7.875" x 2")



Evolver ISX-1, 4, 6



EVOLVER AIR SHOCK

- Ultra High Performance Trail\Enduro Air Shock
- "Twin Tube" Design
- Independent Compression & Rebound Adjustment
- Key Technologies – "No Tools" Air Volume Adjustment, Independent High & Low Speed Adjustments
- Shim Based Performance with SPV Option
- Weight Target: 320g

Configurations (ISX-1)	**Configurations (ISX-4)**	**Configurations (ISX-6)**
190 x 50 (7.5" x 2")	190 x 50 (7.5" x 2")	190 x 50 (7.5" x 2")
200 x 50 (7.875" x 2")	200 x 50 (7.875" x 2")	200 x 50 (7.875" x 2")
200 x 56 (7.875" x 2.25")	200 x 56 (7.875" x 2.25")	200 x 56 (7.875" x 2.25")
216 x 63 (8.5" x 2.5")	216 x 63 (8.5" x 2.5")	216 x 63 (8.5" x 2.5")
230 x 70 (9" x 2.75")	230 x 70 (9" x 2.75")	230 x 70 (9" x 2.75")
240 x 76 (9.5" x 3")	240 x 76 (9.5" x 3")	240 x 76 (9.5" x 3")

Metel R, RP, RPA



METEL COIL SHOCK

- Performance Coil Shock
- Three Models: Good, Better, Best ((1) in-Line, (2) Piggyback)
- Independent Compression & Rebound Adjustment
- Key Technologies: Platform Plus & Adjustable Platform Plus Dampers
- Target Weight: 340g

Configurations (RPA)
165 x 38 (6.5" x 1.5")
190 x 50 (7.5" x 2")
200 x 50 (7.875" x 2")
216 x 63 (8.5" x 2.5")
222 x 70 (8.75" x 2.75")
230 x 70 (9" x 2.75")
240 x 76 (9.5" x 3")
267 x 90 (10.5" x 3.5")

Configurations (RP)
165 x 38 (6.5" x 1.5")
190 x 50 (7.5" x 2")
200 x 50 (7.875" x 2")
200 x 56 (7.875" x 2.25")
216 x 63 (8.5" x 2.5")
222 x 70 (8.75" x 2.75")
230 x 70 (9" x 2.75")
240 x 76 (9.5" x 3")

Swinger X3, X4, X6



SWINGER COIL SHOCK

- High Performance Coil Shock
- Three Models: Good, Better, Best ((1) in-Line, (2) Piggyback)
- Independent Compression & Rebound Adjustment
- Key Technologies – "No Tools" Adjustable Platform Damping, Lock Out
- Target Weight: 340g

Configurations (3X)	Configurations (4X)	Configurations (6X)
165 x 38 (6.5" x 1.5")	165 x 38 (6.5" x 1.5")	190 x 50 (7.5" x 2")
190 x 50 (7.5" x 2")	190 x 50 (7.5" x 2")	200 x 50 (7.875" x 2")
200 x 50 (7.875" x 2")	200 x 50 (7.875" x 2")	200 x 56 (7.875" x 2.25")
200 x 56 (7.875" x 2.25")	200 x 56 (7.875" x 2.25")	216 x 63 (8.5" x 2.5")
222 x 70 (8.75" x 2.75")	216 x 63 (8.5" x 2.5")	222 x 70 (8.75" x 2.75")
230 x 70 (9" x 2.75")	222 x 70 (8.75" x 2.75")	230 x 70 (9" x 2.75")
240 x 76 (9.5" x 3")	230 x 70 (9" x 2.75")	240 x 76 (9.5" x 3")
	240 x 76 (9.5" x 3")	267 x 90 (10.5" x 3.5")

Revox ISX



REVOX COIL SHOCK

- Ultra High Performance Coil Shock
- Piggyback Design w\"No Tools" Volume Adjustment
- SFS Shim\Intrinsic Based Damping
- Independent Compression & Rebound Adjustment
- Key Technologies – Independent External High & Low Speed Control
- Target Weight: 440g

Configurations
222 x 70 (8.75" x 2.75")
230 x 70 (9" x 2.75")
240 x 76 (9.5" x 3")
267 x 90 (10.5" x 3.5")