





# index

Description of FRM icons	Page 6	Thru-Axles and Quick Releases	Page 31
MTB BIKES & FRAMES for XC	Page 7	Disc Rims 29" / 650b	Page 32 - 33
ANAKIN SLK 29" frame & bike	Pages 8- 9	Tubeless Programme (Sealant and accessories)	Page 34
GALAXY 27,5" frame & bike	Pages 10 - 11	MTB CRANKSETS & ACCESSORIES	Page 35
8HP 29" / 27,5" frame & bike	Pages 12 - 13	Cranksets	Page 36 - 38
BE ACTIVE Full 29" / 27,5" frame & bike	Pages 14 - 15	Bottom Brackets - 3TO2 chainring conversions	Page 39
Frame dimensions	Page 16	X-Glide NS c.rings - Chainring Fixing Bolts	Page 40
MTB FORKS for XC	Page 17	Front Derailleur - Chain-guide	Page 41
General information - Functions	Pages 18 - 19	COMPONENTS	Page 42
Air-Way 32 XC Super Race 29er and 27,5"	Page 20	Stems	Page 43
Air-Way 32 XC Team 29er and 27,5"- Cometa 29er	Page 21	Grips	Page 44
WHEELS - MTB for XC & Enduro	Page 22	Handlebars	Page 45
Venus XC Carbon 29" / 650b	Page 23	Seatposts	Page 46 - 4
Venus XC Carbon Tubular 29" / 650b	Page 24	Saddles	Page 48
Venus XC Team Tubular 29" / 650b	Page 25	Headsets	Page 49 - 50
Venus XC Marathon 29" / 650b	Page 26	Accessories	Page 51
Urano XC 29" / 650b	Page 27	Titaniun Bolts - Bearings	Page 52
Urano Enduro 26" / 650b	Page 28	Warranty and Contacts	Page 53
Hubsets	Pages 29 - 30		

### company

#### **WHO WE ARE**

FRM is a company made up of people with one passion: BICYCLES.

Seeing as we are lucky enough to be able to turn what we love into a job, we want to be able to share this with you. This is why we work hard to offer the best products that we possibly can, designing, constructing and testing them ourselves. Our passion means that taking time out for a chat with someone eager enough to pedal up to Riolo Terme brings us just as much joy as selling him or her a new fork would (well, almost!), especially because if they manage to get all the way here, it probably means that our brand is already somewhere on their bike!



#### FRM's HISTORY

We often like to reminisce, usually with a good glass of wine, on the history of our brand. People too often live life so fast that they forget where they came from.

Here we share some of our history, from 1990 until today, with you. This photo shows what FRM has been in the past and what it is today. Just imagine what it is capable of being in the future....





#### **PHILOSOPHY**

Philosophy.... What a big word! Basically we should fill this section with long winded explanations of why it is we do what we do.

Well, in case you haven't already figured it out for yourself, we make bikes..... BECAUSE WE LIKE THEM! And when things are done with passion and enthusiasm, they are usually done better!

So, seeing as our explanation was so quick, we'll fill some more space with some bragging instead, seeing as we produce the lighted MTB on the market right here in Italy and because we often have the sort of great idea that then gives rise to the ideas of many a brand.

We dedicate our time and energy, on a daily basis, to provide you with components and bikes designed to distinguish you from the crowd.

We are here to help you in each and every situation you may encounter and to help you to improve your performance, whether you compete or you ride just for fun. We aim to make you feel, when you push on your pedals, that only you and FRM exist.

#### MADE IN ITALY

"We are Italian, we produce in Italy".

Nice sounding words but a difficult statement to live up to. We have had the great luck of finding, here in Italy, individuals so talented in their work that we have no need to produce our products elsewhere.

Between you and us, this makes us not only happy, but also very, very proud.

There is a slight exception, having an English girl in the office but, to be honest, she's pretty much as Italian as the rest of us now!





#### MAN TO BIKE SYMBIOSI

FRM is famous for the lightness of the bike components we create. This is also another characteristic that we focus on when designing our products: Riders pedal for hours, they tire themselves out, they sweat, tackle uphill and downhill stretches, jumps and bumps.

To do all of this safely, and in the most comfortable manner possible, your bike has to be at one with your body. Some people describe this as "ergonomic", we like to call it "improved pedalling" because, with all the obstacles you'll encounter on your ride, you bike should not be one of them.

On the contrary, it should give you a huge advantage and confidence, precisely because we designed it with this goal.



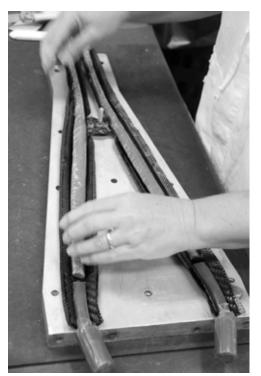
#### **TECHNOLOGY**

FRM is a small company but there is one aspect where we certainly don't fear competition: TECHNOLO-GY. For "technology" we intend the fusion of the most innovative components with our experience and innovation.

This isn't something that just anybody can put their hands to, otherwise the world would be over-flowing with MTB's under 7kg!

Our goal lies in the continuous search for a better component, a new idea to further improve the performance of your bike.

Even if you aren't a world champion, we have you in mind too because remember, when it comes to fun, the only difference between an adult and a child should be the price of the toy!



#### **CARBON FIBRE**

Many things are made from carbon, from pencil leads to diamonds. So... If you were lining these things up on a scale, right after diamonds you would find FRM!

We use carbon because it has such limitless possibilities. By weaving and gluing various sheets of carbon fibre together you can obtain any form that you require, forms which maintain a very high lever of resistance along with incredible lightness.

Working with Carbon fibre certainly isn't easy: a great amount of experience and attention are required to bring about a product like FRM. This is why we entrust ourselves and our products to real craftsmen, artists in their own field who, if they wanted too, could probably pull out a couple of diamonds too!



### icons



E-Thru type frames are compatible with 12x142mm rear hubs. E-Thru type frames are usually supplied with Shimano SM-AX75 quick release. Replaced it with the FRM Task E-Thru for a weight saving of 47g. Do not confuse Shimano E-Thru with Syntace X-12 standard. Their axles are not interchangeable



All FRM EVO rims feature an assymetric profile. This assymetry means that the difference in spoke tension between the right and the left sides is reduced by 20/30%. This means that the wheels are more stable and less prone to damage caused by a broken spoke.



X-12 hubs are compatible with both Shimano E-Thru and Syntace X-12 frames. Lock-nut is 142mm with 12mm bore. The frame-wheel rigidity is much better than with traditional guick-release. FRM rear hubs are converted from 10mm thru-axle q.r. to X-12 system by changing the external axle caps.



Tubular rims are not very common for general MTB use due to the problem of tyre flats. There is a much more vast request on the X-Country circuit due to the presence of technical zones where it is possible to change wheels. The FRM tubular wheels are among the lightest ever produced with carbon fibre or aluminium rims.



QR15 type forks are a valid alternative to traditional forks with slotted drop-outs for an increased tortional rigidity which leads to a more precise and secure drive. The QR15 axle with 15mm diameter is supplied with the fork. The QR15 axles can be either of the quick release variety or bolt type with allen head. FRM forks use the bolt type



The Evo Carbon 29" and 650b rims were designed following the same lines as the EVO aluminium rims: bead hooks are very low and therefore compatible with the Tubeless Ready system. It is probably the only carbon fibre rim made with an assymetric profile, for a lower difference in spoke tension.



Traditional type quick release with 5mm axles have been the standard for road and MTB for decades. Made with steel or titanium axles, they are the lightest system available to fix wheels onto a frame. Unfortunately their use on larger 29" or 27,5" wheels is obsolete as they are not built to withstand their big side load, so that handling and riding precision are no longer acceptable



The CX-Ray wheel spokes are bladed for optimised aerodynamics. The driving torque from the cogs to the tyre is better than that of traditional round spokes. The mechanical characteristics are greater, with respect to the double-butted spokes from which they derive, due to the effect of the cold forging.



Thru-axle type quick release are increasingly used in MTB, particularly for 29er use as larger wheels create a much higher torque on forks and frames. The thru-axle quick release, with 9mm front and 10mm rear aluminium axles are used with slotted type forks and frames. A reduction in flexibility of around 20-25% can be calculated with respect to traditional quick releases.



The Sapim Laser and Race spokes are double-butted for weight reduction without compromising their resistance to traction or stress. The cold forging process increases the elasticity of the spoke evenly.



We are the first company to produce a 29" monocoque frame in Italy. With all respect to the typical Italian tube to tube construction, the monocogue system offers a notable weight riduction. a more constant production quality and an improved load distribution along the tubes. Production times are greatly reduced resulting in quicker delivery times.



The Press-Fit type bottom brackets use plastic bearing cups for cranks with 24-25mm axles. MTB Press-Fit bottom brackets are 89.5mm (symmetrical) or 92mm (asymmetrical) wide. FRM carbon fibre frames feature a 89,5mm Press-Fit bottom bracket



The FRM forks are supplied with 1.5" Taper steerer tube only. The steerer tube base has a diameter of 40mm which joins to a diameter of 28,6mm in the upper part of the tube. The tube is lathe worked from a bar of Scandium aluminium alloy.



The FRM CU3-M20 mounts two chainrings compatible with 10sp chains. We closely studied our chainring pattern combinations long before Sram or Shimano did, so they have, in some way, conformed to our standards. For 26" bikes we offer 40-27T For 29" bikes we offer: 36-22 or 38-24T, which is ideal for 27.5" bikes



The new Air-Way 32 XC Super Race forks feature a hollow carbon fibre brace. The carbon fibre structure increases the torsional rigidity by 12% with respect to the aluminium brace, whilst simultaneously reducing the weight by approx. 50g.



Post-Mount type brake caliper assembly has already taken the place of the older International Standard on forks whilst on frames this change-over is taking place now. The FRM Anakin, Galaxy, Be Active 29 and 8HP Full use the Post-Mount standard for 160mm discs. The brake caliper is fixed directly to the frame without the use of an adaptor.



FRM freewheels turn on two bearings, one of which has a double row of ball bearings. The engagement is created with the use of four steel "Big Pawls" each one activated by it's own spring. The toothed ring onto which the pawls are activated is machined from titanium or steel depending on the hub model.



The International Standard system for fixing brake calipers has still a solid base on frames, particularly those made from aluminium. The 8HP front suspended frame uses the I.S. standard for assembly with 160mm and 140mm discs.



The FRM Urano hubs have been designed following the Shimano Center-Lock concept whilst using normal six-hole discs. Any six-hole disc is inserted onto a support with pins rather than threaded bores for the six bolts. A lock-ring is then screwed on to block the disc into position. This system makes the assembly and disassembly of the discs much easier.



This symbol indicates all the FRM products where some part of the component is made in Titanium: hardware, quick release axles, freewheel toothed rings etc. The titanium used is always grade 9 with 6AL-4V code.





ANAKIN SLK carbon monocoque | bike

**29**"



















#### **XCR0 - XCR1** | kg 7,9 8 | kg 7,18 rigid **29**"

- 1. FRM monocoque Anakin SLK 29" Size S/M L(XL
- 2. FRM Air-Way 32 Super Race 85mm. 1,5" taper. QR15 OPTION: Cometa 1,5" rigid
- 3. FRM Venus XC Carbon 29"

OPTION: Venus XC Carbon Tubular (-100g)
Venus XC Marathon (+95g)

- 4. Thru-axles: front QR15. Rear E-Thru 12x142mm
- 5. Sapim CX Ray
- 6. FRM CU3-M10 Osymetric 34t (XCR1: CU3-M20NS 36-22
- Sram XX1 (XCR1: Sram XX rotors & rear der.)
- 8. FRM FD-M ZX Short Ti. Down-Pull
- 9. Sram XX1 10-42 (XCR1: Sram XG1099 XX 11-36)
- 10. Sram XX1 (XCR1: KMC X10SL. Hollow pins & cages)
- 11. FRM Web-Bar 329 Carbon+Silicone grips
- 12. FRM HS-M13 Ti. (80-90-100-110mm)
- 13. FRM D-Set 1,5" Taper IS/IS Ti.
- 14. Formula R1 Racing. Rotors 160-160mm
- 15. FRM ST-M10 Ti. 27,2x350mm
- 16. FRM SC32 Ti.
- 17. FRM Black Hole
- 18. Kenda Kozmic Lite DTC 29"+FRM Sealant

Rider weight limit: 90kg

#### **XCR2** kg 8,55 kg 7,7 rigid

- I. FRM monocoque Anakin SLK 29" Sizes S/M L/XL
- 2. FRM Air-Way 32 XC Team 85mm. 1,5" taper. QR15 OPTION: Cometa 1,5" rigid
- 3. FRM Venus XC Marathon
- 4. Thru-axles: front QR15. Rear E-Thru 12x142mm
- 5. Sapim Laser 2,0-1,5-2,0
- FRM CU3-M20NS 36-22 Ti.
- 7. Sram XO 2013 rotors & rear derailleur
- FRM FD-M ZX Short Ti. Down-Pull
- SRAM XG1080 X-Dome 11-36
- 10. KMC X10L. Hollow pins
- 11. FRM Web-Bar 229 Carbon+Silicone grips
- 12. FRM HS-M13 Ti. (80-90-100-110mm)
- 13. FRM D-Set 1,5" Taper IS/IS Ti.
- 14. Formula R1. Rotors 160-160mm
- 15. FRM ST-M10 Ti. 27.2x350mm
- 16. FRM SC32 Ti.
- 17. FRM Aspen Ti.
- 18. Kenda Kozmic Lite DTC 29"+FRM Sealant

Rider weight limit: 95kg

### **ANAKIN SLK** carbon monocoque



Monocoque mainframe and stays, manufactured under FRM licence. Proprietary design of frame and moulds

· T800 carbon fibre, with optimised unidirectional layering

· Post-Mount brake support

• E-Thru (12x142mm) replaceable dropouts

· Embossed FRM logo on the top tube

· Internal routing of front and rear derailleurs

• Head Tube: 1,5" - 1 1/8" Integrated

• Headset: FRM D-Set 1,5" Taper ZS/IS included

• Bottom Bracket: Press-Fit 89,5mm (41x89,5mm)

Seatpost Collar: FRM SC32 Ti. included

· Seatpost diameter: 27,2mm

· Shelter BC shields included

• Sizes: Small/Medium - Large/XLarge (see page 16)

· Finish: first ever unpainted carbon fibre frame

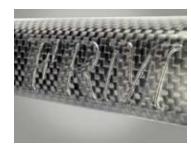
· Rider weight limit: 95kg

**29**<sup>1</sup>

• Weight: 1050g. (Medium) + E-Thru axle 38g



**29**"













GALAXY carbon | bike

**27,5**"















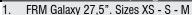
**XCR0 - XCR1** kg 8,05

#### **GALAXY** carbon frame









- FRM Air-Way 32 XC Super Race 100mm. 1,5" taper. QR15
- FRM Venus XC Carbon 650b

OPTION: Venus XC Carbon Tubular + Challenge (-100g) Venus XC Marathon 650b (+95g)

- Thru-axles: Front QR15. Rear Task Team
- Sapim CX Ray
- FRM CU3-M10 Osymetric 36t (XCR1: CU3-M20NS 38-24)
- Sram XX1 (XCR1: Sram XX rotori & cambio)
- FRM FD-M ZX Short Ti. Down-Pull
- Sram XX1 10-42 (XCR1: Sram XG1099 XX 11-36)
- 10. Sram XX1 (XCR1: KMC X10SL. Hollow pins&cages)
- 11. FRM Web-Bar 329 Carbon + Silicone grips
- 12. FRM Web-Stem 6B Ti.
- 13. FRM D-Set 1,5" Taper ZS/IS Ti.
- 14. Formula R1 Racing. Rotors 160-160mm
- 15. FRM ST-M10 Ti. 31,6x350mm
- 16. FRM SC35 Ti.
- 17. FRM Black Hole
- 18. Kenda Karma 650b+FRM Sealant

Rider weight limit: 95kg

#### **XCR2** kg 8,5

- FRM Galaxy 27,5" Sizes XS S M
- FRM Air-Way 32 XC Team 100mm. 1,5" taper. QR15
- FRM Venus XC Marathon 650b
- Thru-axles: Front QR15. Rear Task Team
- Sapim Laser 2,0-1,5-2,0mm.
- FRM CU3-M20NS 38-24 Ti.
- Sram XO 2013 rotors & rear derailleur
- FRM FD-M ZX Short Ti. Down-Pull
- SRAM XG1080 X-Dome 11-36
- 10. KMC X10L. Hollow pins
- 11. FRM Web-Bar 229 Carbon + Silicone grips
- 12. FRM Web-Stem 6B Ti.
- 13. FRM D-Set 1,5" Taper ZS/IS Ti.
- 14. Formula R1. Rotors 160-160mm
- 15. FRM ST-M10 Ti. 31,6x350mm
- 16. FRM SC35 Ti.
- 17. FRM Aspen Ti.
- 18. Kenda Karma 650b+FRM Sealant

Rider weight limit: 95kg

#### • 100% Made in Italy

- · Tube set manufactured under FRM Licence
- Assembly: Tube to Tube carried out by hand in Italy
- Optimised Ground Absorption rear stays
- Post-Mount brake support
- Dropouts: 10x135mm. Replaceable derailleur hanger
- Head Tube: 1,5" 1 1/8" Integrated (56mm fork head)
- Headset: FRM D-Set 1,5" Taper ZS/IS included
- Bottom Bracket: Press-Fit 89,5mm (41mm hole)
- Seatpost diameter: 31,6mm
- Seatpost Collar: FRM SC35 Ti. included
- Shelter BC shields included
- Sizes: X/Small, Small, Medium (see page 16)
- Finish: Clear coating

Rider weight limit: 100kg











suspended or rigid bike 8HP

**27,5**" **29**"









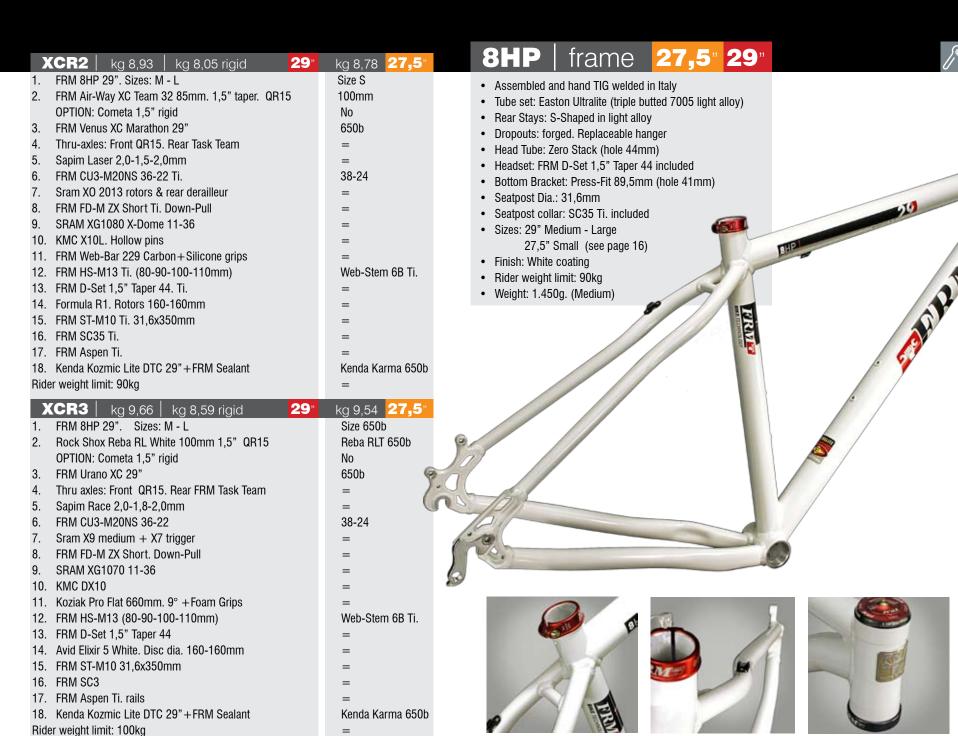




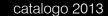




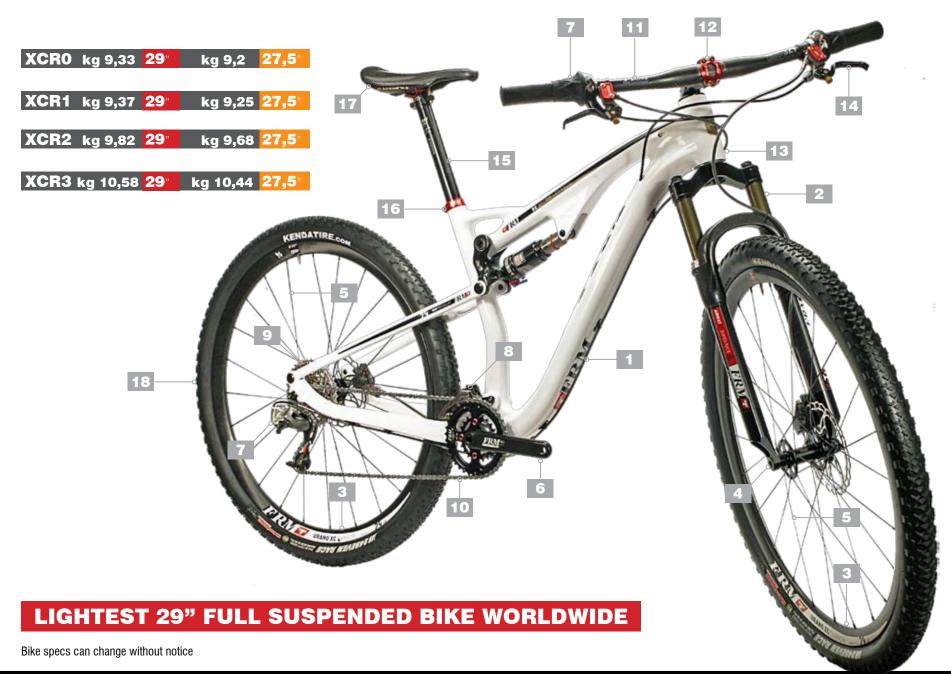








Be Active 29 Carbon bike 29" 27,5" QR15 X-12 BSA 68 36-22 AFERD CARBON SAYM BOIL





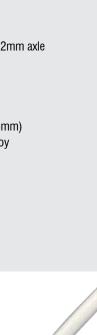
	ADA VADA		00:		07.5		
	CRO - XCR1	kg 9,33	<b>29</b> "	kg 9,2	27,5"		
1.	FRM Be Active Carbon.	Size S - M					
2.	FRM Air-Way 32 Super	= 650b					
3.	FRM Venus XC Carbon		No				
	OPTION: Venus XC Mai		= 650b				
4.	Thru-axles: Front QR15	mm	=				
5.	Sapim CX Ray			=			
6.	FRM CU3-M11 Osyme	tric 34t (XCR1: CU3-N	120NS 36-22)	36t Osym. (XC	R1 38-24)		
7.	Sram XX1 (XCR1: Sran	)	=				
8.	SRAM XO Direct-Moun		=				
9.	Sram XX1 (XCR1: SRA		=				
	Sram XX1 (XCR1: KMC	ages)	=				
	FRM Web-Bar 329 Car			=			
	FRM HS-M13 Ti. (80-9			Web-Stem	6B Ti.		
	FRM I-Set 1,5" Taper T			=			
	Formula R1 Racing Ro			=			
	FRM ST-M10 Ti. 31,6x	350mm		=			
16.	FRM SC35 Ti.			=			
	FRM Black Hole. Carbo			=			
18.	Kenda Kozmic Lite DTC	C 29" + FRM Sealant		Kenda Karı	na 650		

18. Kenda Kozmic Lite DTC 29"+FRM Sealant	Kenda Karma 650			
<b>XCR2</b>   kg 9,82 <b>29</b> "	kg 9,68 <b>27,5</b> "			
1. FRM Be Active Carbon Size M - L	Size S - M			
2. FRM Air-Way 32 XC Team 100mm. 1,5" taper. QR15	= 650b			
3. FRM Venus XC Marathon	= 650b			
4. Thru-axles: Front QR15. Rear E-Thru 12x142mm	=			
5. Sapim Laser 2,0-1,5-2,0	=			
6. FRM CU3-M20NS 36-22 Ti.	38-24			
7. Sram XO rotors & rear derailleur	=			
8. SRAM X9 Direct-Mount S3	=			
9. SRAM XG1080 X-Dome 11-36	=			
10. KMC X10L. Hollow pins	=			
11. FRM Web-Bar 229 Carbon+Silicone grips	=			
12. FRM HS-M13 Ti. bolts (80-90-100-110mm)	Web-Bar 6B Ti.			
13. FRM I-Set 1,5" Taper. Ti.	=			
14. Formula R1. Rotors 160-160mm	=			
15. FRM ST-M10 Ti. 31,6x350mm	=			
16. FRM SC35 Ti.	=			
17. FRM Aspen Ti. rails	=			
18. Kenda Kozmic Lite DTC 29"+FRM Sealant	Kenda Karma 650b			

## Be Active29 Carbon frame 29" 27,5"



- · Frame and suspension struts molded in Carbon Fibre in Asia
- Paint and assembly performed in Italy
- Rear wheel travel: 100mm through a 4-Bar Link suspension design
- · Chainstays: short at 450mm.
- BB height: 315mm
- · Post-Mount brake support
- Dropouts: X-12 12x142mm with Syntace 12mm axle
- S3 Direct-Mount front derailleur adaptor
- · Internal routing of front and rear derailleurs
- · Head Tube: integrated (Campy style)
- · Bottom Bracket: BSA 68mm
- Rear shock: Rock Shox Monarch RT3 (165mm)
- · Hard anodised suspension axles in light alloy
- Full-ball type bearings (Enduro Max)
- · Seatpost Dia.: 31,6mm
- · Sizes: Medium, Large in 29" Medium in 27,5" (see page 16)
- · Finish: White coating
- · Rider weight limit: 95kg
- Weight: 2.300g. (Medium) with rear shock





Enduro Full Ball bearings













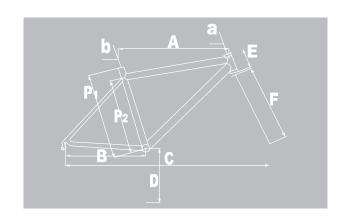








anakin SMALL/MEDIUM LARGE/X-LARGE	29"	<b>P1</b> 470 510	<b>P2</b> 405 430	<b>A</b> 585 617	<b>B</b> 430 430	<b>C</b> 1.072 1.102	<b>D</b> 295 295	<b>E</b> 95 115	<b>F</b> 492 (Air-Way 32 29" travel 85mm) 492 "	<b>a</b> 72° 72°	<b>b</b> 74,5° 74,5°	<b>Cyclist height</b> from 165 to 179cm from 180 to 189cm
8hp MEDIUM LARGE	29"	<b>P1</b> 460 500	<b>P2</b> 410 450	<b>A</b> 595 615	<b>B</b> 435 435	<b>C</b> 1.075 1.095	<b>D</b> 295 295	<b>E</b> 105 115	<b>F</b> 492 (Air-Way 32 29" travel 85mm) 492 "	<b>a</b> 72° 72°	<b>b</b> 74,0° 74,0°	<b>Cyclist height</b> from 173 to 179cm from 180 to 189cm
<b>be active</b> MEDIUM LARGE	29"	<b>P1</b> 450 483	<b>P2</b> 330 345	<b>A</b> 598 617	<b>B</b> 450 450	<b>C</b> 1.116 1.135	<b>D</b> 315 315	<b>E</b> 115 125	<b>F</b> 507 (Air-Way 32 29" travel 100mm) 507	<b>a</b> 71,0° 71,0°	<b>b</b> 74,0° 74,0°	<b>Cyclist height</b> from 170 to 179cm from 180 to 189cm



8hp 27 SMALL	<b>,5</b> " <b>P1</b> 420	<b>P2</b> 375	<b>A</b> 575	<b>B</b> 420	<b>C</b> 1.055	<b>D</b> 292	<b>E</b> 95	<b>F</b> 487 (Air-Way 32 650b travel 100mm)	<b>a</b> 71°	<b>b</b> 74,0°	<b>Cyclist height</b> from 160 to 171cm
galaxy 27 X-SMALL SMALL MEDIUM	,5" P1 410 430 460	<b>P2</b> 340 360 410	<b>A</b> 560 575 595	<b>B</b> 420 420 420	<b>C</b> 1036 1.051 1.071	<b>D</b> 292 292 292	<b>E</b> 100 100 115	<b>F</b> 487 (Air-Way 32 650b travel 100mm) 487 "	<b>a</b> 71,0° 71,0° 71,0°	<b>b</b> 74,0° 74,0° 74,0°	Cyclist height from 150 to 159cm from 160 to 169cm from 170 to 179cm
<b>be active 27</b> SMALL MEDIUM	<b>95" P1</b> 410 440	<b>P2</b> 350 350	<b>A</b> 570 600	<b>B</b> 435 435	<b>C</b> 1.113 1.144	<b>D</b> 315 315	<b>E</b> 100 110	<b>F</b> 487 (Air-Way 32 650b travel 100mm) 487 "	<b>a</b> 69,0° 69,0°	<b>b</b> 74,5° 74,5°	<b>Cyclist height</b> from 159 to 169cm from 170 to 179cm





 Open Oil-Bath: 200cc of racing quality fork oil acts as a damping element, lubricates all moving parts and cools the temperature

- Stable Platform Valve: the fork does not work to impulses from the cyclist's weight shifting. No manual lock-out (Dynamic Lock-Out). The fork does not sag
- Tuning: a) Air Pressure b) Threshold c) Progressiveness d) Rebound
- Most aluminium parts are CNC machined from 7075 light alloy
- 32mm dia. upper legs in Scandium light alloy. Black Hard anodised and Teflon coated
- Lower legs are made in High Grade Carbon Fibre for weight saving and torsion strength
- · Double dust seal system for longer life and improved smoothness
- Very low maintenance (one or two oil changes per year)

#### DIFFERENT SPECS:

\* XC Super Race: brace in hollow carbon fibre

\* XC Team: brace in light alloy with 4 titanium bolts

- SSV Valve: the free-flow oil ports are closed. Oil flows from the lower to the higher chamber through oil ports whose area is varied by a piston that is compressed by a tunable spring via a NEW external knob. The variable oil port makes the fork speed sensitive (ground absorbption progressively faster with bump dimension or bike speed) The tunable spring dictates of the stable platform treshold: the fork does not sag under cyclist's weight
- Oil Valve shim is open. Free-flow of oil from lower to intermediate chamber through twelve holes. Higher oil flow compared to 2012 Air-Way forks: better ground absorpition at high speed
- Oil flow is partially directed from the lower to the intermediate chamber through the damping setting hole.
- SSV variable oil ports are closed. Oil transfers from intermediate to lower chamber through eight free-flow oil
- Oil Valve shim is closed. Oil is not transferred from the intermediate to the lower chamber through the Oil Valve.
- Oil transfers from the intermediate to the lower chamber through the piston shaft and is limited by the adjustable Damping Piston. Rebound speed is adjusted via the external damping knob



### **SPECIFICATIONS**













- CNC machined crown from 7075 light alloy. Pressed steerer column (1,5" Taper) in double-butted Scandium light alloy
- 32mm dia. upper legs in Scandium light alloy. Black Hard anodised. Teflon coated. Hand polished with 3000 grade polishing paper up to 0,05 Ra. Smoother than the Kashima finish of other brands
- Oil seal + double dust seals. The space between the two dust seals is full of Teflon Oil for improved smoothness
- Vacuum formed carbon fibre brace for lightness and extreme torsion stiffness
- Carbon fibre lower legs. Shorter or longer dropouts define the correct fork height for 29" or 650b wheels
- The new disc brake mount (Post-Mount type) is much stiffer than before
- Torsion stiffness is greatly improved by using QR15 front axles. For bikes with 29" or 27,5" wheels the QR15 axle/wheel system is a must, due to the bigger leverage of the wheels with respect to 26". The axle is CNC machined from 7075 light alloy and hard anodised for very long lasting. The thread in the fork leg is replaceable in case of damage.
- External knob for the damping adjustement. Rebound speed is modified by turning the knob
- External knob for the Stable Platform. Via this adjustment knob the dynamic lock-out can be modified depending on the cyclist's weight and/or attitude. When correctly set the fork does not sag or bob when pedalling, while leaving it free to absorb bumps from the terrain. This Dynamic Lock-Out replaces the typical Manual Lock-Out of other brands, leaving the cyclist free to concentrate on riding, instead of forcing him to decide when to lock or unlock the fork. The fork will never be forgotten locked in a downhill section



1 1,5" taper



2 32mm upper legs



6 Stiffer brake mount



7 QR15 dropouts



A hex key can be stored inside the hollow axle



SSV external knob

# AIR-WAY 32 SUPER RACE

#### **29**"

Wheel travel: 85 / 100mm

Height: 492mm with travel 85 507mm with travel 100

Rake: 47mm with travel 85 49mm with travel 100

Steerer tube: 1,5" taper only

Dropouts: QR15 only

Rider weight limit: 95kg

Weight: 1.475g. + axle 34g.

### **LIGHTEST 29" FORK EVER**













Wheel travel: 100mm

Height: 487mm

Rake: 46mm

Steerer tube: 1,5" taper only

Dropouts: QR15 only

Rider weight limit: 95kg

Weight: 1.457g. + axle 34g.









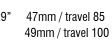






**29**" **27,5**"





27,5" 46mm / travel 100



### **AIR-WAY** XC TEAM

**29**"

Wheel travel: 85 / 100mm

Height: 492mm with travel 85 507mm with travel 100

Rake: 47mm with travel 85 49mm with travel 100

Steerer tube: 1,5" taper only

Dropouts: QR15 only

Rider weight limit: 95kg

Weight: 1.525g. + axle 34g.









Wheel travel: 100mm

Height: 487mm

Rake: 46mm

Steerer tube: 1,5" taper only

Dropouts: QR15 only

Rider weight limit: 95kg

Weight: 1.507g + axle 34g.









**29**"



### **COMETA** 1,5"

Rigid fork for 29er bikes

Full Carbon

Height: 482mm

Rake: 46mm

Steerer tube: 1,5" taper in carbon fibre

Finish: clear coated

Rider weight limit: 95kg

Weight: 620g.























- Hubs and rims are made in Italy
- Not for sale in the USA
- Among the lightest 29" or 650b wheels available worldwide for clinchers
- Tubeless Ready for standard tyres with Sealant
- Rims: new hyperlight FRM EVO Carbon rims for clinchers (370g each)
- Asymmetric profile for lower difference in spoke tension beteween right and left sides
- The tension difference between right and left spokes is less than 10%. This makes a much more stable wheel
- Spokes: Sapim CX Ray black. One spoke lenght for both wheels: 278mm for 29". 260mm for 650b wheels
- Hubs: new FRM Venus Super Race. Drilled flanges and toothed ring in titanium
- Holes: 24 front, 24 rear
- Supplied with 500cc Sealant, White Tape, Spark air valves, Bearing Tool Kit, two freewhels (10s & 11s XX1), outer caps for all fork/frame standards, two spare spokes
- Crash Replacement Program: rims returned for damages not in warranty are replaced at 50% of the actual price list
- Rider weight limit: 90kg
- Weight: 29" 1.335g. set 650b 1.260g set

OPTION: Task Team thru-axle front quick release (33g.)

Venus Lefty Super Race front hub

Task Team thru-axle rear quick release (45g.)

double wheelbag













### **VENUS** XC CARBON TUBULAR

**29**" **650**b











- Hubs and rims are made in Italy
- Among the lightest wheels available worldwide for 29" or 650b" tubular tyres
- The EVO carbon Tubular 29" and 650b is compatible with glued tubular tyres
- Asymmetric profile for lower difference in spoke tension between right and left sides
- The tension difference between right and left spokes is less than 10%. This makes a much more stable wheel
- Spokes: Sapim CX Ray black. One spoke lenght for both wheels: 278mm for 29". 260mm for 650b wheels
- Hubs: new FRM Venus Super Race. Drilled flanges and toothed ring in titanium
- Holes: 24 front, 24 rear
- Supplied with Bearing Tool Kit, two freewhels (10s & 11s XX1), outer caps for all fork/frame standards, two spare spokes
- Crash Replacement Program: rims returned for damages not in warranty are replaced at 50% of the actual price list
- Rider weight limit: 90kg
- Weight: 29" 1.195g. set 650b 1.140g set

OPTION: Task Team thru-axle front quick release (33g.) Venus Lefty Super Race front hub Task Team thru-axle rear quick release (45g.) double wheelbag













### **VENUS** XC MARATHON TUBULAR

**29**" **650**b













- Hubs and rims are made in Italy
- XMD309 Tubular rims in 6082 light alloy are compatible with glued tubular tyres
- Steel Eyelets. Anodised and laser etched
- Asymmetric profile for lower difference in spoke tension beteween right and left sides
- The tension difference between right and left spokes is less than 10%. This makes a much more stable wheel
- Spokes: Sapim Laser 2,0-1,5-2,0mm. One spoke length for both wheels: 280mm for 29". 262mm for 650b wheels
- Hubs: new FRM Venus Super Race. Drilled flanges and toothed ring in titanium
- Holes: 32-32
- Supplied with Bearing Tool Kit, two freewhels (10s & 11s XX1), outer caps for all fork/frame standards, two spare spokes
- Rider weight limit: 90kg
- 650b 1.315g set Weight: 29" 1.380g. set

OPTION: Task Team thru-axle front quick release (33g.) Venus Lefty Super Race front hub Task Team thru-axle rear quick release (45g.) double wheelbag





















- Hubs and rims are made in Italy
- Not for sale in the USA
- Tubeless Ready for standard tyres with Sealant
- Rim: FRM EVO 29" or 650b with eyelets. Anodised and laser etched
- Asymmetric profile for lower difference in spoke tension beteween right and left sides
- The tension difference between right and left spokes is less than 10%. This makes a much more stable wheel
- Spokes: Sapim Laser 2,0-1,5-2,0mm. One spoke length for both wheels: 280mm for 29". 262mm for 650b wheels
- Hubs: new FRM Venus Super Race. Drilled flanges and toothed ring in titanium
- Holes: 32-32
- Supplied with 500cc Sealant, White Tape, Spark air valves, Bearing Tool Kit, two freewhels (10s & 11s XX1), outer caps for all fork/frame standards, two spare spokes
- Rider weight limit: 100kg
- Weight: 29" 1.430g. set 650b 1.355g set

OPTION: Task Team thru-axle front quick release (33g.)

Venus Lefty Super Race front hub

Task Team thru-axle rear quick release (45g.)

double wheelbag

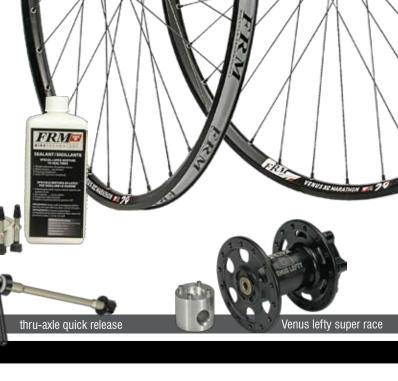






**OPTIONS** 















- Hubs and rims are made in Italy
- Not for sale in the USA
- Rim: FRM EVO 29" or 650b with eyelets. Anodised and laser etched
- Asymmetric profile for lower difference in spoke tension beteween right and left sides
- The tension difference between right and left spokes is less than 10%. This makes a much more stable wheel
- Spokes: Sapim Race 2,0-1,8-2,0mm. One spoke lenght for both wheels: 280mm for 29". 262mm for 650b wheels
- Hubs: FRM Urano, black. Toothed ring in Steel.
- Holes: 32 / 32
- Boltless disc installation. Disc lockrings weigh 12g. each, about the same weight of 12 fixing bolts
- Supplied with 500cc Sealant, White Tape, Spark air valves, Bearing Tool Kit, outer caps for all fork/frame standards, two spare spokes
- Rider Weight Limit: 100kg
- Weight: 29" 1.535g. set 650b 1.450g. set

OPTION: Task Team thru-axle front quick release (33g.) Task Team thru-axle rear quick release (45g.)









Accessories supplied with wheelsets

**OPTIONS** 



**URANO** ENDURO Tubeless Ready

**26**" **650**b

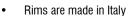












Tubeless Ready for standard tyres with Sealant

Rim: WTB Frequency Team i23

Width: 28mm. Weight: 26" 475g. 650b 455g.

Spokes: Sapim Race 2,0-1,8-2,0mm

Hubs: new FRM Urano Enduro

Holes: 32 / 32

Boltless disc installation

Supplied with 500cc Sealant, White Tape, Spark air valves, Bearing Tool Kit, two freewhels (10s & 11s XX1), front caps QR20 and QR15, rear caps QR10 (10x135mm), QR12 (12x135mm), X12 (12x142mm), two spare spokes

Rider Weight Limit: 110kg

Weight: 26" or 650b 1.710g

OPTION: wheelbag











### **VENUS** Super Race











Made in Italy

Designed for X-Country Racing, they feature large diameter flanges and 17mm axles for optimal torsional rigidity necessary for 29ers

Flange spacing has been designed for minimal difference in spoke tension between right and left sided spokes

New: a) the freewheel "Big Pawls" are bigger than before to evenly distribute the loads on larger surface

b) one of the two body bearings is of bigger dimensions than before for larger load capacity

c) the boltless disc fixing has been replaced by a standard six-bolt system

d) supplied with outer cups compatible with all present standards: front QR15 and QR9. Rear X12 and QR10

e) supplied with two freewheel bodies: 10speed and 11 speed XX1

f) supplied with the Bearing Tool Kit for the correct manteinance

Three Rubber Lip Seals make the freewheel as well as outer bearings completely waterproof

The toothed ring of the freewheel is in Titanium (8g. lighter than steel ring)

The 17mm axles in Scandium light alloy are stiff and light. Hard anodised for longer lasting lifespan

Holes: front 24-28-32 rear 24-32

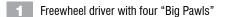
Finish: black anodised and laser etched

Weight pair: 355g. (115+240)

109g. front Venus Lefty Super Race (new model with self-extractor)

OPTION: Task Team thru-axle front quick release (33g.)

Task Team thru-axle rear quick release (45g.)



17mm axle in light alloy. Hard anodised

Toothed ring in Titanium









Venus Lefty Super Race with tool for self-extracting flange

#### **OPTIONS**

#### **SRAM XD (XX1) FREEWHEEL DRIVER**

- Freewheel Driver compatible with new Sram XD drivetrain available as option for Urano and Venus rear hub
- Available as spare part to convert all previous URANO wheelsets and hubs. No special tools or specific experience are necessary
- Supplied with:
- two ball bearings
- two specers
- four pawls and springs
- two lip seals
- two specific outer pugs (QR10 and X-12)









### **URANO ENDURO**









Designed for heavy-duty Enduro racing, they feature large diameter flanges and 17mm axles for optimal torsional rigidity

Flange spacing has been designed for minimal difference in spoke tension between right and left sided spokes

- New: a) the freewheel "Big Pawls" are bigger than before to evenly distribute the loads on larger surface
  - b) one of the two body bearings is of bigger dimensions than before for larger load capacity
  - c) supplied with outer cups compatible with all standards: front QR15, QR20. Rear X12, QR12 (12x135) and QR10 (10x135mm)
  - e) supplied with two freewheel bodies: 10speed and 11 speed XX1
- Three Rubber Lip Seals make the freewheel as well as outer bearings completely waterproof
- The toothed ring of the freewheel is in steel
- The 17mm axles in Scandium light alloy are stiff and light. Hard anodised for longer lasting lifespan
- Bolt-less disc fixing system (lock-ring tool supplied with hubset)
- Holes: 32-32
- Finish: black anodised and laser etched
- Weight pair: 408g. (158+250)











### **URANO**

Designed for X-Country or Trail bike, they feature large diameter flanges and 17mm axles for optimal torsional rigidity

Flange spacing has been designed for minimal difference in spoke tension between right and left sided spokes

- New: a) the freewheel "Big Pawls" are bigger than before to evenly distribute the loads on larger surface
- Three Rubber Lip Seals make the freewheel as well as outer bearings completely waterproof
- The toothed ring of the freewheel is in steel
- The 17mm axles in Scandium light alloy are stiff and light. Hard anodised for longer lasting lifespan
- Bolt-less disc fixing system (lock-ring tool supplied with hubset)
- Holes: 32-32
- Finish: black anodised and laser etched
- Weight pair: 359g. (115+244) without disc lock-ring

OPTION: QR9 front or QR10 rear with Task Team thru-axle quick releases (78g. set)

QR15 front

X-12 rear (12x142mm)





Front QR15





Rear QR10











Available plugs





Rear X-12











- Made in Italy
- QR15 and E-Thru axles compatible with Rock Shox and Fox forks as well as the original Shimano axles for 12x142 E-Thru frames
- CNC machined form 7075 light alloy
- Hard anodised
- Bolt system for extreme weight reduction and to make the wheel change faster than with quick releases
- Front axles feature an Allen key holder so it is always on hand without loosing time to search for it
- Weight: front QR15 36gr (weight saving with respect to Rock Shox o Fox: 37g) rear E-Thru 38gr (weight saving with respect to Shimano E-Thru quick release 52gr)

OPTION: Front QR15 Rock Shox Front QR15 Fox Rear E-Thru 12x142mm



### TASK E-THRU



- Rear quick release, E-Thru 142 x 12mm (M12x1,5)
- Replaces the original Shimano SM-AX75 (90g.) for a weight saving of 47g.
- New for 2013: supplied with splined nut
- Finish: black anodised lever
- Weight: 43g.

### TASK TEAM



- Thru-axle type quick releases
- CNC machined from light alloy
- 9mm front and 10mm rear axles in light alloy solid axles
- Compatible with QR9 front hubs and QR10 rear hubs
- Weight: 78g. pair (33+45g.)

OPTION: Red, Titan, Orange, Blue, Black anodised levers

front or rear only









# EVO CARBON Tubeless Ready 29" 650b SARBON SA







- Made in Italy
- Not for sale in the USA
- Manufactured under FRM license. Proprietary design and mould
- Hyperlight, yet torsionally very stiff
- T800 Caron Fibre, with optimised unidirectional layering for excellent suppleness and extreme torsion stiffeness
- Asymmetric profile for better and even spoke tension
- If coupled to FRM Venus hubs the tension difference between right and left sided spokes is less than 10%
- Supplied Tubeless Ready (White Tape & Spark valves included)
- Holes: 24-28-32
- Dimensions: Width 26mm. Height 29mm. Channel 19mm.
- ERD 29" 580mm 650b: 544mm
- Suggested spoke tension: 130kg
- Rider Weight Limit: 90kg
- Weight: 29" 370g. 650b: 340g. +13g. White Tape & Spark Light Air Valve

OPTION: 29" or 650b 24-28-32 holes



# **EVO CARBON TUBULAR**





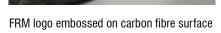




- For glued Tubular tires
- Manufactured under FRM license. Proprietary design and mould
- Hyperlight, yet torsionally very stiff
- T800 Caron Fibre, with optimised unidirectional layering for excellent suppleness and extreme torsion stiffeness
- Asymmetric profile for better and even spoke tension
- If coupled to FRM Venus hubs the tension difference between right and left sided spokes is less than 10%
- Holes: 24-28-32
- Dimensions: Width 26mm. Height 29mm
- ERD 29" 580mm 650b: 544mm
- Suggested spoke tension: 130kg
- Rider Weight Limit: 90kg
- Weight: 29" 300g. 650b: 280g.

OPTION: 29" or 650b 24-28-32 holes







### **EVO** Tubeless Ready







- Made in Italy
- Not for sale in the USA
- Redesigned profile for higher torsion stiffness
- Anodised and laser hetched
- Eyelets: single in stainless steel
- Asymmetric profile for better and even spoke tension
- Supplied Tubeless Ready (White Tape & Spark valves included)
- Holes: 32
- Dimensions: Width 24,3mm. Height 17,7mm. Channel 20,3mm

ERD 29er: 599mm 650b: 563mm

- Suggested spoke tension: 130kg
- Rider Weight Limit: 95kg
- 650b 350g. +11g. White Tape & Spark Air Valve Weight 29" 360g.

OPTION: 29" or 650b



### XMD309 Tubular









- For X-Country Racing with Tubular tyres. Tested in the World Cup
- Anodised and laser etched
- Eyelets: single in stainless steel
- Asymmetric profile for better and even spoke tension
- Holes: 32
- Dimensions: Width 24,5mm. Height 18mm. Outer dia. 29" 630mm 650b 595mm

ERD 29": 604mm ERD 650b: 568mm

- Suggested spoke tension: 130kg
- Rider Weight Limit: 85kg
- Weight: 29" 355g. 650b 330g.

OPTION: 29" or 650b





### TUBELESS SEALANT

- Made in Germany. Used by top racers in the World Cup
- Converts tube tyres into Tubeless with RRS Rim Strips or White Tape
- Seals any UST tyre
- If used correctly, it can seal holes up to 6mm
- 50 to 80cc of sealant is needed depending of the tyre dimensions
- Available in 500 cc or 1000cc bottles



### WHITE TAPE

29" 650b 26"

- To convert normal wheelsets to Tubeless together with Spark Air Valves
- 5m tape roll for two 26", 650b or 29" wheels
- Compatible with Mavic 517, 717, American Classic 330, DT 4.1 and 4.2, Notubes, FRM XMD and EVO rims
- Kit White Tape are supplied with one White Tape roll, two Spark Air valves and 500cc Sealant
- The RRS Rim Strip is recommended with other types of rims
- Weight per 29" wheel: 9g.
- Weight per 26" wheel: 7a.







#### **AIR VALVE CORE**

- Removable core of Spark Air Valves
- Replacement is sometimes necessary when sealants dry out and lock out the needle

### **RRS RIM STRIP**



- To convert wheels for tubes to Tubeless, together with Spark Air Valves
- Kits RRS are supplied with two RRS Strips, two Spark Air Valves, reinforced tape and 500cc Sealant

OPTION X-COUNTRY: For 26" X-Country rims, 21,5-27mm wide (strip width 25mm)

Weight per wheel: 62g.(air valve included)

FREERIDE: For 26" rims, 30-35mm wide (strip width 33mm)

Weight per wheel: 82g. (air valve included)



#### **SPARK AIR VALVE**

- For use with White Tape or RRS rim strip to convert traditional tube wheels into Tubeless
- Compatible with DT, Mavic, Bontrager or Shimano XTR UST rims
- Presta type with removable core
- Weight: 7,5g.











Available colours



Made in Italy

Compatible with 2x10 drivetrains for X-Country bikes

New beefier lever shape CNC machined from Scandium light alloy

Black Hard Anodised levers. Long lasting finish

25mm axle, CNC machined from Scandium alloy. Hard anodised

Double-seal bearings with dust seals

NS (No Spider) type big chainring, directly attached to the

CNC machined chainrings from 7075 alloy, polished, anodised and laser etched

Torx type Chainring Fixing Bolts in light alloy. Anodised and laser etched

Q-Factor: 163mm Chainline: 53mm

Gold Plated Titanium left Crank Arm fixing bolts

Rider Weight Limit: 90kg

Weight without Bottom Bracket (172,5mm): 40-27: 610g.

38-24: 600g.

36-22: 585g.

BSA: 87q. Weight of bottom brackets:

Press-Fit: 65g.

BB30 / Press-Fit30: 70g.

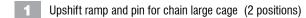
OPTION: Arm length: 170-172,5-175 mm

> Chainring Combination: 40-27 / 38-24 / 36-22 BSA 68 or 73mm **Bottom Bracket:**

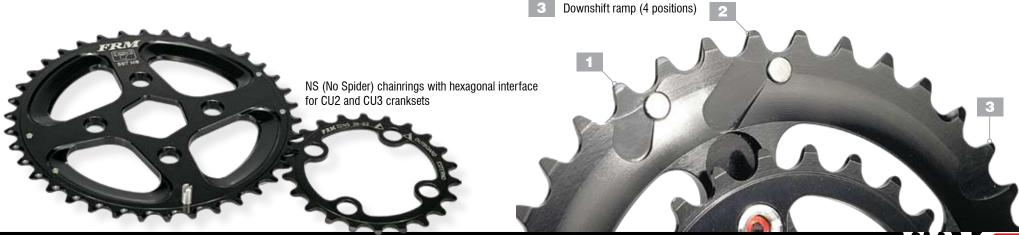
> > BB30 73 or 84,5mm Press-Fit 89,5 or 92mm Press-Fit 30 73mm

Colour of accessories: Red, Orange, Blue, Titan, Black





Upshift ramp and pin for chain narrow cage (2 positions)



# CU3-M20 ENDURO Double





- Made in Italy
- Compatible with 2x10 drivetrains for Enduro Bikes
- New beefier lever shape CNC machined from Scandium light alloy
- Black Hard Anodised levers, Long lasting finish
- 25mm axle, CNC machined from Scandium alloy. Hard anodised
- Double-seal bearings with dust seals
- CNC machined spider for double with 104-64mm BCD
- 3TO2 FRM chainrings machined from 7075 alloy, polished, anodised and laser etched
- Chainring pattern: 36-22
- Q-Factor: 163mm Chainline: 44,8mm
- Gold Plated Titanium left Crank Arm fixing bolts
- Rider Weight Limit: 90kg
- Weight without Bottom Bracket (172,5mm): 620g.
- Weight of bottom brackets: BSA: 87a.

Press-Fit: 65q.

BB30 / Press-Fit30: 70g.

OPTION: Arm length: 170-172.5-175 mm

> Bottom Bracket: BSA 68 or 73mm

> > BB30 73 or 84,5mm Press-Fit 89.5 or 92mm Press-Fit 30 73mm



- Same specs as CU3-M20 Enduro except:
- CNC machined spider for single rings with 104mm BCD
- Q-Factor: 163mm Chainline: 48mm
- Long Tooth cahinrings help keeping the chain up, but the upper chainguide is suggestable. best choice is FRM KCU
- Weight without Bottom Bracket (172,5mm): 585g. with 34t ring
- Weight of bottom brackets: BSA: 87a.

Press-Fit: 65a.

BB30 / Press-Fit30: 70g.

32t Long Tooth - 34t Long Tooth - 36t OPTION: Chainring:

> 170-172.5-175 mm Arm length: BSA 68 or 73mm Bottom Bracket:

BB30 73 or 84,5mm Press-Fit 89.5 or 92mm Press-Fit 30 73mm







FRM

# CU3-M10 Single Osymetric

29" 27,5" Ti BOLT

- Compatible with 1x10 or 1x11 drivetrains
- Same specs as CU3-M10 Single except:
- 34 or 36T oval Osymetric rings
- Q-Factor: 163mm Chainline: 48mm
- The FRM KCU chain-quide is necessary. Most chainquides are not compatible with very ovalised rings
- Rider Weight Limit: 90kg
- Weight without Bottom Bracket (172,5mm): 585g. with 34t ring
- Weight of bottom brackets: BSA: 87g.

Press-Fit: 65a.

BB30 / Press-Fit30: 70g.

34 or 36t Osymetric OPTION: Chainring: 170-172,5-175 mm Arm length:

Bottom Bracket: BSA 68 or 73mm

> BB30 73 or 84.5mm Press-Fit 89,5 or 92mm Press-Fit 30 73mm





Replaceable spider for single chainring with single fixing bolts (4pcs)



# CU3-M11 XX1 compatible

Compatible with new Sram XX1 1x11 drivetrain

- Same specs as CU3-M10 Single
- CNC machined spider for XX1 single rings
- Q-Factor: 163mm Chainline: 50,5mm
- Specific M8,4mm fixing bolts are included
- Weight without Bottom Bracket (172mm / 36d): 585g.

Weight of bottom brackets: BSA: 87q.

Press-Fit: 65q.

BB30 / Press-Fit30: 70g.

OPTION: Arm length: 170-172,5-175 mm

> Bottom Bracket: BSA 68 or 73mm

BB30 73 or 84,5mm Press-Fit 89,5 or 92mm Press-Fit 30 73mm



## XX1 SPIDER

- Compatible with Sram XX1 single chainrings
- With this spider all FRM CU3-M cranksets can be converted from double to XX1 singles
- Specific M8,4mm bolts are included





## **BSA** 68 -73mm

- Two threaded bearing cups in light alloy (left and right)
- Two double seal bearings 37 x 25 x 7mm
- Two seal shields
- Two 2,5mm alloy spacers for use with 68mm BB shells
- Weight: 87g



## **BB30** 73mm - 84.5mm

- Two plastic bearing cups (dia. 42mm. Shoulder 6mm)
- Two double seal bearings 37 x 25 x 6mm
- Two plastic spacers for use with 73mm BB shell
- Two seal shields
- · Bearing press tool
- Weight: 70g









### **PRESS-FIT** 89.5 - 92mm

- Two plastic bearing cups (dia. 41mm Shoulder 2mm)
- Two double seal bearings 37 x 25 x 7mm
- Two seal shields
- Two 1,25mm spacers for use with 89,5mm BB shells
- Bearing press tool
- Weight: 65g

### PRESS-FIT30 73mm

- Two plastic bearing cups (dia. 46mm)
- Two double seal bearings 37 x 25 x 7mm
- Plastic spacers
- Two seal shields
- Bearing press tool
- Weight: 70g

### NS TOOL 25

Tool to disassemble the NS chainrings or the four-arm spider



- Made in Italy
- CNC machined from 7075 aluminium. CNC ramps and steel pins for optimal shifting precision
- Polished, anodised Black and laser etched
- Compatible with triple 4 arm cranksets with BCD 104/64mm
- Compatible with 2x9 or 2x10 drivetrains
- 42, 40, 36t, rings to be assembled in the intermediate position. 27, 26 & 22t rings to be assembled in the internal position
- Chainring Radius: 42t: 87mm 40t: 83mm 36t: 74mm 27t: 56mm 26t: 54mm
- Suggested Combinations: for 26" 42-27, 40-27, 40-26 For 29" 36-22
- Four aluminium spacers (red) to be assembled in the external position. This allows the use of original fixing bolts
- Four specific spacers are require for Shimano XTR FC970 2007-08-09 cranksets
- Weight: 42t 48g. 40 & 36t 44g. 36t 38g. 27t 29g. 26t 25g.



# X-GLIDE NS CHAINRINGS

**29**" **27,5**"

- Chainrings compatible with X0 / X9 cranksets (with 24mm axle only. No 30mm axles) by replacing the original spider
- CNC machined from high quality 7075 light alloy. Ramps and steel pins for optimal shifting precision
- Polished, anodised and laser etched
- Weight save with respect to the original Sram X0 crankset with 39-26 chainrings: 105g.
- Weight save with respect to the original Sram XO crankset with 36-22 chainrings: 60g.

OPTION: 36-22 or 38-24





- Made in Italy
- CNC machined from 7075 aluminium
- · Polished, anodised Black and laser etched
- Compatible with 104mm BCD 4-arm cranksets and 10 or 11 speed cogsets
- 32 and 34t rings are of the "Long Tooth" type. Longer teeth avoid the use of lower pulleys to keep the chain up. The use of an upper chain-quide is suggested. Best choice is FRM KCU chain-quide
- Weight: 34t 40g

OPTION: 32t Long Tooth - 34t Long Tooth - 36t

## **CHAINRING BOLTS**

- Made in Italy
- CNC machined from 7010 light alloy. Compatible with Torx30 key
- Laser etched FRM

OPTION: anodised Red, Titan, Blue, Orange, Black, Silver, Gold



















**29**" **27,5**" **26**" (227) (40-27)











Front derailleur suitable for MTB 2x9 or 2x10 drivetrains

Super Short cage for compatibility with chainrings from 42 to 36T (29er)

Top-Swing type (High-Collar)

Titanium bolts (3 or 4 pcs depending on model)

Weight: 100g.(Down-Pull), 104g. (Top-Pull)

OPTION: Down-Pull or Top-Pull

Collar diameter: 31,8mm or 34,9mm



# KCU Chain-guide

Made in italy

For X-country and Enduro bikes with single rings

Ineer anouter cages made in moulded carbon fibre. Embossed FRM log

Collar and Direct-Mount adapter in 7075 light alloy

Titanium hardware (6 M4x9mm + 2 M5x15mm)

Designed to also be compatible with extreme oval shaped rings

Weight: High Collar 35g. Low Collar: 33g. Direct-Mount 30g.

OPTION: High collar Low collar Direct-mount





# WEB-STEM 6B Ti.

**29**" **27,5**" **26**"

- Made in Italy
- CNC machined from a solid billet of Scandium light alloy
- Titanium hardware (6pcs)
- Interchangeable angle +/-7° with flip-flop logo
- Stack height: 35mm
- Black anodised and laser etched
- Rider Weight Limit: 85kg
- Weight: 100g. 75mm 105g. 90mm 109g. 100mm 114g. 110mm

OPTION: length: 75 - 90 - 100 - 110mm Red, Orange, Blue, Titan, Black cap





Gold plated Titanium hardware (6pcs)



## **HS-M15** Ti.



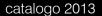
- CNC machined from a solid billet of Scandium light alloy
- 15° negative angle
- Compatible with flat handlebars only
- Much stiffer and safer than stems designs with removable caps
- Perfect for 29" bikes when the saddle/hanldebar height difference is not enough for your riding style
- The FRM 229 handlebar is the perfect match with this low rise stem
- Titanium hardware (4pcs)
- Stack height: 35mm
- Black anodised and laser etched
- Rider Weight Limit: 90kg
- Weight: 100g. 80mm 104g. 90mm 109g. 100mm 112g. 110mm

OPTION: length: 80 - 90 - 100 - 110mm

Distance between contact surface with headset and handlebar center

- 80mm: +4mm
- 90mm: +2mm
- 100mm: - 1mm
- 110mm: - 3mm





# **SILICONE** GRIPS Off-Centre

- Made of memory-form silicone
- New for 2013: off-centre for lighter weight, smaller diameter, but unchanged padding comfort
- Slip-proof wet or dry, reduces hand fatigue
- Will not harden or fade with time
- No glue or lock-ons are required.
- Washable
- Length 120mm. Cut to 90mm if mated to 2013 Sram twist shifters and save 30g, over the original grips
- Diameter: 33mm
- Packaged into an FRM water bottle
- Weight: 72g. pair (54g. when cut to 90mm for Sram rotors)

OPTION: black or red

Asymmetric profile. Rotate with the thicker side toward the hand palm







## **FOAM GRIPS 130**

- Grips in soft, light foam, designed by Pro riders for maximum performance and lightness
- FRM logo impressed into the foam
- One of the cheapest and quickest ways to reduce weight and better the comfort of the bike
- Length 130mm. Cut to 90mm if mated to 2013 Sram twist shifters and save 65g, over the original grips
- Packaged into an FRM water bottle
- Weight: 28g. pair (20g when cut to 90mm for Sram Rotors)



## **WEB-BAR** CARBON 329

**29**" **27,5**"

- Made in Italy under FRM licence
- 100% High Module T800 carbon fibre
- Flat with ideal width and angle for X-Country 29" or 27,5"bikes
- Width: 685mm
- Rise: 0mm
- Diameter 31,8 / 22,2mm
- Bend: 10° Backwards
- Weight: 145g.



## **WEB-BAR** CARBON 229

**29**" **27,5**"

- 100% High Module carbon fibre
- Off-centre. The bar height from ground can be modified by 10mm by flipping the bar
- Flat with ideal width and angle for X-Country 29" or 27,5" bikes
- Width: 700mm
- · Rise: 0mm
- Diameter 31,8 / 22,2mm
- Bend: 7° Backwards
- Weight: 150g.



## WEB-BAR CARBON ENDURO 29" 27,5" 26"

- 100% High Module carbon fibre
- Riser with width and bend ideal for Enduro or Trail bikes of all wheel sizes. Not for DH
- Width: 760mm.
- Diameter 31.8 / 22.2mm
- · Rise: 20mm
- Bend: 9° Backwards, 4° Upwards
- · Weight: 180g.





# ST-M BLACK HOLE ST-R BLACK HOLE



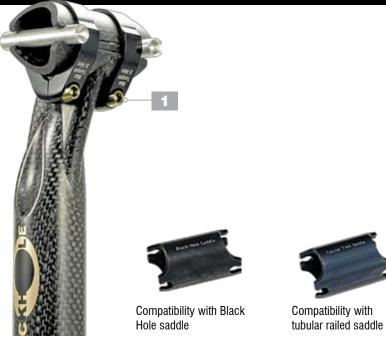
- Made in Italy under FRM licence
- Monocogue made from T800 Carbon Fibre
- Perfect match with Black Hole stem and saddle
- One of the lightest seatposts in the World
- Aluminium collars allow for secure tilt and fore/aft saddle position
- Dimensions: 31,6 x 350mm. 31,6x250mm Offset: 22mm
- Gold-Plated Titanium fixing bolts
- Rider Weight Limit: 80kg
- ST-M Black Hole 31,6x350mm 144g. Weight: ST-R Black Hole 31,6x250mm 125g.

OPTION: Lenght: 250 (ST-R Black Hole) or 350mm (ST-M Black Hole)

Cradle compatible with regular railed saddles Cradle compatible with Black Hole saddles







# ST-11E Ti.



- Made in Italy
- Shaft manufactured in Scandium light alloy. Head and clamp are CNC machined from 7075 light alloy.
- Compatible with frames with integrated seat tubes
- Frame seat tube diameter: Inner 31,6mm. Outer: 35mm
- Max possible extension: 20mm
- Titanium hardware
- Supplied with 1, 2, 5 & 10mm spacers for perfect saddle haight
- Offset: 26mm
- Rider Weight Limit: 90kg
- Weight: 135g.



## **ST-M10** Ti.

# ST-M10 Ti. XL

Ti BOLT

- Made in Italy
- CNC Machined from Scandium alloy, externally double butted to save further weight
- Black anodised post. Laser etched
- Gold-plated Titanium bolts
- Rider Weight Limit: 85kg

27,2X350: 155g. Weight: ST-M10 Ti. 30,9 x350mm 173g.

ST-M10 Ti. XL 30,9 x400mm 187g. 31,6 x 400mm 192g.

OPTION: 27.2 - 30.9 - 31.6 x 350mm 30,9 - 31,6 x 400mm (XL)

Cradle Colour: Red, Orange, Blue, Titan, Black



Available colours



### **SC35** Ti. SC32 Ti.

- Made in Italy
- Asymmetric seat collars ideal for carbon fibre seatposts as they put less pressure on the frame slot
- SC32 compatible with frames that have 31,8mm diameter seat tubes
- SC35 compatible with frames that have 34,9mm diameter seat tubes
- Weight: 11g.

OPTION: SC35 Red, Titan, Blue, Orange, Black, Acid Yellow, Forest Green, Purple SC32 Red, Titan, Blue, Orange, Black

Gold plated Titanium hardware





Available colours



- Made in Italy under FRM licence. Proprietary design and moulds
- Monocoque shell made from T-800 Carbon Fibre
- Flexibility and absorption superior than that of carbon saddles featuring tubular rails
- Excellent anatomical shape which will not deform over time
- **Unpainted Carbon finish**
- Dimensions: 265 x 120mm
- Rider Weight Limit: 80kg

Weight: 70g.





# ASPEN Ti.

- Carbon Fibre reinforced moulded shell
- Titanium rails
- Leather surface with Kevlar reinforced wings
- Super Light foam filling
- Dimensions: 270 x 130mm
- New for 2013: Black and White with FRM logo
- Rider weight limit: 85kg
- Weight: 210g.





### **COMMON SPECIFICATIONS**

- Made in Italy
- 100% machined from light alloy
- Angular Contact Bearings ACB
- Sealed bearings and rubber lip seals for years of trouble-free performance
- Expander-Plug Team allows for easy installation and play-adjustment
- Bolt: Gold-plated Titanium. Torx 25 OPTION: Red, Orange, Blue, Titan, Black













Available colours

## \_

Gold plated Titanium hardware (1pc)

## **D-SET** 1 1/8" ZS

ZS44/28,6 I ZS44/30



- Zero Stack type. For 1 1/8" forks. Road or MTB frames with 44mm upper and lower bores
- Angular Contact Bearings ACB 36°x45° (41x30,15x6,5mm)
- Stack Height: 14mm
- See Common Specs

Weight: 78+17g. (Expander-Plug Team) = 95g.



## **I-SET** 1,5" Taper

IS42/28,6 I IS52/40



- · For fully integrated road or MTB frames, Campy style
- Angular Contact Bearings ACB (Upper 41,8x30,15x7mm 45°x45°. Lower 52x40x6,5mm 36°x45°)
- Stack Height: 9mm
- See Common Specs

• Weight: 69+17g. (Expander-Plug Team) = 86g.



# D-SET 1 1/8" ZS44/49 ZS44/28,6 | ZS49/30



- Upper and lower Zero Stack. For double crown DH forks. Frames with 44mm upper and 49,6mm lower bores
- Angular Contact Bearings ACB 36°x45° (Both 41x30,15x6,5mm)
- Stack Height: 11mm

See Common Specs
 Weight: 97+17g. (Expander-Plug Team) = 114g.



## **D-SET** 1,5" Taper 44

ZS44/28,6 | EC44/40



- Upper Zero Stack. Lower external. For 1,5" tapered forks. Road or MTB frames with 44mm upper and lower bores
- Angular Contact Bearings ACB 36°x45° (Upper 41x30,15x6,5mm. Lower 52x40x6,5mm)
- Stack Height: 21mm
- See Common Specs
- Weight: 94+17g. (Expander-Plug Team) = 111g.





- Upper Zero Stack. Lower external. For 1,5" tapered forks. Frames with 44mm upper and 49,6mm lower bores
- Angular Contact Bearings ACB 36°x45° (Upper 41x30,15x6,5mm. Lower 52x40x6,5mm)
- Stack Height: 21mm
- See Common Specs
- Weight: 100+17g. (Expander-Plug Team) = 117g.



## **D-SET** 1,5" Taper ZS

ZS44/28,6 I ZS56/40



- Upper and lower Zero Stack. For 1,5" tapered forks. E2 frames with 44mm upper and 56mm lower bores
- Angular Contact Bearings ACB 36°x45° (Upper 41x30.15x6.5mm, Lower 52x40x6.5mm)
- Stack Height: 9mm
- See Common Specs Weight: 91+17q. (Expander-Plug Team) = 108q.



## **FORK CONVERSION**

- Lower Race Crown to mount MTB Forks with 11/8" steerer tube onto frames with conical 1,5"-11/8" headsets
- Aluminium
- Compatible with ACB 36°x45°, 52mm diameter bearings ONLY



- Upper Zero Stack, Lower Integrated, For 1.5" tapered forks, Road or MTB frames with 44mm upper and 52mm lower bores
- Angular Contact Bearings ACB 36°x45° (Upper 41x30,15x6,5mm. Lower 52x40x6,5mm)
- Stack Height: 7mm
- See Common specs
- Weight: 71+17g. (Expander-Plug Team) = 88g.





### EXPANDER-PLUG TEAM

- Light and efficient system to register headset play
- Ideal for Carbon Fibre steerer tubes
- 100% aluminium
- Play-adjustment bolt in Gold-plated Titanium (Torx25)
- Weight: 17g.

OPTION: Colour: Red, Blue, Black, Orange, Titan













Available colours

## **STEM SPACERS**

- Stem spacers made from sinthetic plastic
- Lighter and cheaper than spacers in carbon fibre
- Weight: 1 2g.

OPTION: height 5 or 10mm



### **THRU-AXLE RACK**

- CNC machined from light alloy
- It is designed to load bikes with either QR15 or QR20 forks onto your existing racks with 9mm skewers.
- a) Use the end plugs depending on the axle dimension
- b) Remove the front wheel, slip the 15mm axle through the Thru-Axle Rack and tighten it.
- c) Place the bike onto the roof rack putting the bottom of the Thru-Axle Rack onto the 9mm original rack skewer and tighten in place

## **H20 BOTTLE**

- Transparent water bottle: 500 cc
- Large mouth
- FRM logo

### **BOTTLE OPENER**

- Aluminium
- Allows bottle tops to be reused as it does not cause them to bend
- FRM logo

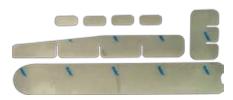






### SHELTER BC FRAME PROTECTION

- Multilayer elastomeric compound designed to protect down tube and other parts mostly exposed to shocks
- Disperses impact energy which decreases at every layer crossing reducing the effect of the shock
- Very resilient. A few seconds from the impact the surface returns smooth
- Made of 50 layers of a visco-elastomeric material like a memory foam that absorbs energy before it gets through to the frame.
- Resistent to temperatures from -30° a +130°.
- Precut in pieces for lower down tube, chainstay, chainsuck, housings



### **DOUBLE WHEELBAG**

29" 650b 26"

- Wheel-bag for two Road or MTB 26"/650b/29er wheels
- Padded outer and inner walls
- Inner pocket for quick releases
- Owner's name holder
- FRM logo





# TITANIUM HARDWARE



### TITANIUM 6AL /4V Gold-Plated

- M4 x 9 Cone Head. (KCU Chainguide)
- M5 x 10 Button Head. Torx25 (Disc Rotors)
- M5 x 12 Torx 25 (FRM CU3 crankset and XC Team forks)
- M5 x 15 Torx 25 (FRM CU3 cranks, stems, seat collar SC35)
- M5 x 25 Conical Head. Torx 25 (Expander-Plug Team)
- M6 x 15 Allen Head
- M6 x 50 Allen Head (Special design for seatpost ST-M10)
   M7 x 35 Allen Head (Special design for seatpost ST-M11 ST-R11 ST-11E)



# **BEARINGS**

<ul> <li>Enduro BB 699</li> </ul>	9x20x6 ABEC5 2RS	FRM front hubs FL-R Team e SP-R Team pre 2010
<ul> <li>Enduro BB 61901</li> </ul>	12x24x6 ABEC5 2RS	FRM rear hubs FL-R Team, SP-R Team, FL-R/M Pro pre 2010
<ul> <li>Enduro BB 6802</li> </ul>	15x24x5 ABEC5 2RS	FRM front hubs FL-M Team, SP-M Team, FL-R/M Pro, Lefty pre 2010
<ul> <li>Enduro MR 1526</li> </ul>	15x26x7 ABEC5 2RS	FRM rear hubs Titano 2010/2011
<ul> <li>Enduro BB 61803</li> </ul>	15x26x5 ABEC5 2RS	FRM front and rear Urano hubs
<ul> <li>Enduro BB 3803</li> </ul>	17x26x10 ABEC5 2RS.	Double row. Urano and Titano freewheels
<ul> <li>Enduro BB 61804</li> </ul>	20x32x7 ABEC5 2RS	Titano and Urano QR20 front hubs
<ul> <li>Nachi BB 6805</li> </ul>	37x25x7 ABEC5 2RS	Double lip. FRM cranksets with 25mm axle
<ul> <li>FRM ACB 413645</li> </ul>	30,15x41x6,5 36°x45°	Compatible with 1 1/8" Cane Creek headsets. Chrome steel
<ul> <li>FRM ACB 424545</li> </ul>	30,15x41,8x7 45°x45°	Compatible with 1 1/8" Campy headsets. Chrome steel
<ul> <li>Enduro ACB 523645</li> </ul>	40x52x6,5 36°x45°	Compatible with 1,5" Cane Creek headsets. Chrome steel





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## **WARRANTY**

At FRM we strive to provide our customers with perfect bikes and components... But even the best of families have problems at times, that's why we have the FRM warranty:

Warranty: FRM products are guaranteed against any defects for a period of 2 years from the date of purchase by the first owner.

Obligations: In case of defects, FRM pledge to replace or repair, at their discretion, the part recognised as defective. To be accepted, the complaint must be communicated to FRM either directly, if purchased directly from FRM or through the dealer/importer from which the part was purchased.

If FRM, after checking the part, finds that the damage is due to one of the reasons mentioned in the following paragraph, the warranty request will not be accepted and the detective item is sent back to the plaintiff who supports the shipping fees.

Limitations: The guarantee does not cover damage resulting from transportation, warehousing, accidents, negligence, impact or falls, non-compatible products, bad maintenance, modifications or alterations to the product. The guarantee does not cover parts and components subject to normal wear and tear such as ball-bearings, bushings seals, brake pads, disc rotors, etc. If you do have a problem with an FRM part that you think might be covered by warranty then write to us at warranty@frmbike.com and we will let you know how to proceed. Whatever the case, whether covered by warranty or not, we will do our best to help resolve your problem in as little time possible.

Oh, almost forgot... Our warranty does not cover sporting results. FRM products improve your performance but they won't automatically turn you into a champion. So, if you didn't win your last race, don't blame us, just train harder next time!

