MAVIC®



retailer CATALOG 2001

www.mavic.com

MTB TUBELESS UST CONCEPT
ROAD SSC GRUPPO

USA

WHAT'S NEW?







Road/Triathlon

All the SSC wheels are equipped with the new " FTS L " free wheel body design, a design that reduces the weight by 40 g on the rear wheel.

The Classics rises in the range by becoming SSC, lighter and with CERAMIC braking surface.

MTB

UST Tubeless, Tubeless ! Tubeless !

Three new Tubeless UST wheels : Crossmax UST Disc, Crossroc UST and Crossroc UST Disc.

In parallel withes the new products, many tire manufacturers believe in the Tubeless system and have developed products that are UST compatible for the 2001 collection.

ASSISTANCE

Being continuously on the road is a source of inspiration. It is even difficult to imagine that we would not be inspired by our passion : bikes, since we are there, every week-end, at races or events all over the world. Mavic technicians and their famous yellow cars are sure to be in the heart of the action.

We are particularly proud to have created and especially to have ensured neutral assistance on the Tour de France for 25 years, with no interruption, as well as during the summer Olympics at Barcelona, Atlanta and of course Sydney 2000.








TEAMS

Road

Flying the Mavic colors high, working in very close cooperation and also enjoying the sweet taste of victory while refining our products, this is the essence of our partnership with the different teams, athletes and federations for the road and triathlon all over the world :

BIGMAT.Auber93, Phonak Hearing Systems, Jelly Belly, Crédit Agricole, Fassa Bortolo, Festina, Linda Mc Cartney , Phonak Hearing Systems, Euskaltel, Fuenlabrada, Cologne, Mroz, Tavira, Seat Kona

The French, American, German, Belgian, Irish, Ukrainian, and Canadian Federations.




Triathlon

Olivier Marceau is an Olympic medal in distance and World Champion with our KSYRIUM SSC wheels.

Assystem, Poissy, Triathl'aix, Simon Lessing, Olivier Marceau, Ian Rehula, Paul Amey , Anja Dittmer, Matthias Klumpp, David Haines, Isabelle Mouthon, Béatrice Mouthon, Yves Cordier

MTB

For several years, we have been working with the best teams. They help us to develop our products and refine our technology. This was the case for the Tubeless UST - First use on the MB Tour de France in 1998. We would like to give special thanks to the teams and athletes who have chosen Mavic for the 2000 season.

Specialized, GT, Bianchi, Coronas, Zeus Orbea, Lapierre, Egobike, Scott International, Scott France , Herin Corrado, Taillefer Bicycles, Sunn Bmx , Webco, Commencal Bicyles, Steppenwolf, Stevens Jeantex, Cycle Craft, Mapei Dbr, Marielle Saner.




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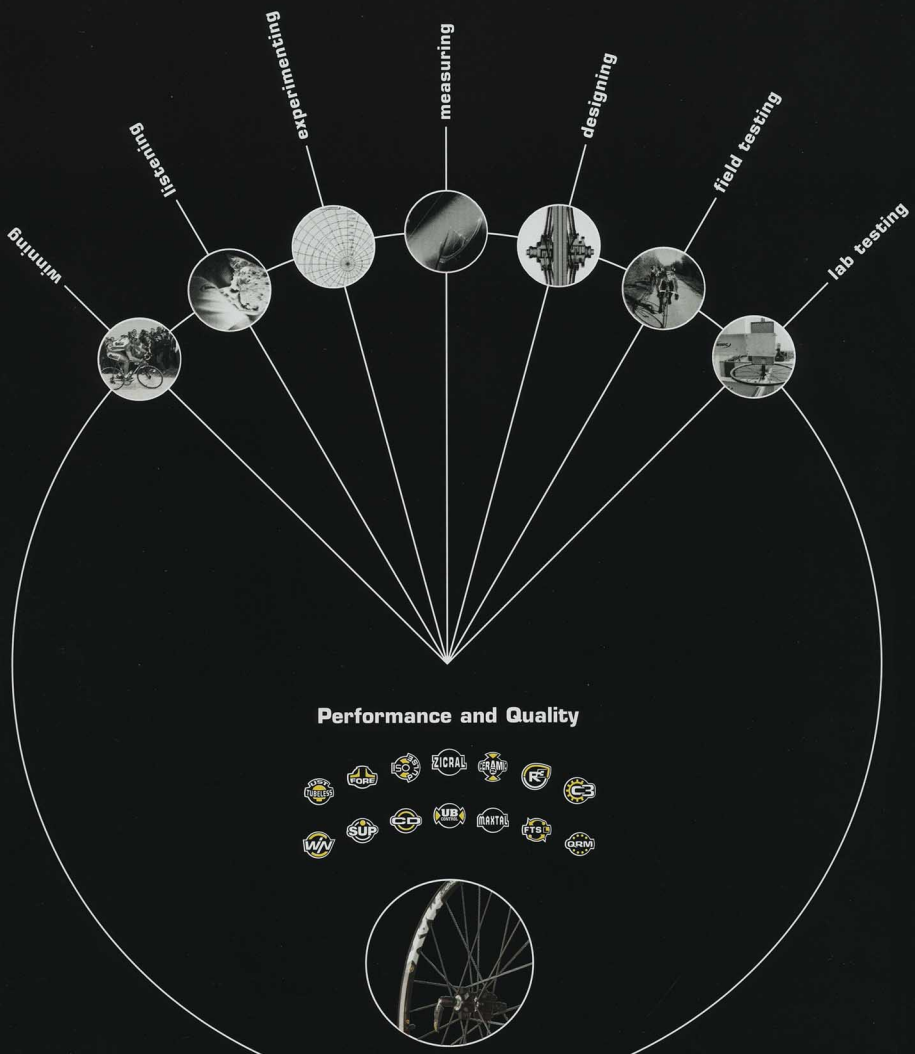
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winning
listening
experimenting
measuring
designing
field testing
lab testing
Performance and Quality
ZICRAL
CERAMIC
MAXTAL
FTS
QRM

MAVIC TECHNOLOGY

TUBELESS UST

Concept :

Tire and wheel design that eliminates the use of rim tape and tube.

Benefits :

• No flat tires due to pinched tubes, torn valve stems or rim tape problems.

• Very slow deflation rate if punctured.

• Greater efficiency due to absence of heat and friction between tube / rim tape / tire.

• Optimized grip and efficiency by regulating the tire pressure according to the type of terrain, with less risk of flats even at low tire pressure.

Mavic recommends tubeless UST tires.

FORE

Concept :

New technology that consists of "piercing" only one rim wall with no loss of material and then tapping the resultant alloy tunnel.

Benefits :

• Strength and stiffness : no holes in the rim's upper bridge.

• Less weight: fewer spokes, no rim tape, no eyelets.

ISOPULSE

Concept :

New spoke design where the spokes are radially mounted on the free wheel side and crossed on the opposite side.

The hub is specifically designed to transmit the effort onto the non drive side.

The radially laced spokes are also positioned closer together in 2 by 2 at the hub.

Benefits :

• More stability and efficiency due to a reduction in the difference in tension between each side of the wheel.

• Better transmission of effort.

• The work of each spoke is optimized.

ZICRAL

Concept :

Aluminum alloy offers very high mechanical features and is perfectly adapted to making spokes.

Therefore, at equal weight, a Zicral spoke is 10 % stronger statically than a stainless steel spoke.

Benefits :

• Spokes that are very strong and more lightweight.

Zicral is a Péchiney Rhenalu registered trademark

CERAMIC 2

Concept :

Mavic has optimized the Ceramic procedure to offer more efficient braking and greater resistance to shocks and chipping.

A plasma beam torch spreads titanium and aluminum oxide powders on the sidewalls of the rim.

This coating creates a thermal insulator and provides exceptional hardness to the sidewalls of the rim (30 times greater than aluminum).

Benefits :

• Reduces braking distances by 20 % in dry weather and 50 % when raining.

• Reduces heat on the rim.

• Superior resistance to wear.

• Increased shock resistance.

R3

Concept :

Leaf spring with kinematics with no friction on the caliper.

Benefits :

• Efficient braking.

• Smooth action.

C3

Concept :

A splined, hollow oversize axle.

Benefits :

• Lightweight rigidity.

• Better transmission of effort.

WIN

Concept :

Wireless transmission control system.

Benefits :

• Lightweight : elimination of connecting cables

shifter buttons / derailleur / speed sensor.

• Performance : transmission by radio waves, digitally coded with no interference.

SUP

Concept :

After bending, the rim joint is arc welded.

The welded seam is then milled by digitally controlled machines.

Benefits :

• On a SUP rim, the strength of the joint can increase to 90 %. On ordinary sleeve-joint rims, strength of the joint is 40 % to 60 % lower than on the rest of the rim.

• No visible joints that could cause shuddering during braking.

• The "monobloc" geometry makes wheel building and balancing easier.

CD

Concept :

This type of anodization process reinforces the oxide layer that forms on the aluminum profile surface.

On the surface of the rim, a greater micro-hardness is obtained.

Benefits :

• Greater resistance to wear (150 - 400 times higher than any other type of anodization).

• Greater resistance to corrosion.

• Easier to build and balance the wheel.

UB CONTROL

Concept :

After anodization, the sidewalls of the rim are milled on digital controlled machines.

The coefficient of friction between the rim and brake pad is therefore increased.

Benefits :

• Efficient braking : higher coefficient.

• Smooth joint to prevent shuddering when braking.

MAXTAL

Concept :

A specific Mavic 6000 series aluminum alloy, designed in cooperation with Péchiney, that offers optimum features for manufacturing rims. The Maxtal alloy is 30 % stronger than the 6106.

Benefits :

• At equal weight, a Maxtal rim is 30 % stronger than a 6106.

And at equal strength, a Maxtal rim is lighter than a 6106 rim.

FTS L

Concept :
The contact area between the pawl and hub body is reinforced by two stainless steel insets, which distribute the applied loads and allow for manufacturing an all aluminum hub body.
Benefits :
• Strength : steel inserts and forged hub body. Even more lightweight !

QRM

Concept :

All Mavic hubs are designed on the following technical principles :

- sealed cartridge bearings.

- adjustable bearings.

- removable bearings.

- low rolling resistance.

Benefits :

• Performance : quality bearings.

The heart of the system: a UST Tubeless rim and a sealed valve.



MOUNTING

Insert the first bead in the bottom of the groove.



For the second bead, start on the opposite side of the valve. Mounting is done without using tools.



Insert the second bead in the bottom of the groove. Finish at the valve.



The tire must fit snugly in the bottom of the groove before inflating.



REMOVAL

Deflate the tire. Then beginning at the point opposite to the valve, unlock one side of the bead by forcing it into the gorge of the rim. Continue in this fashion around the rest of the tire.



Without using tire levers, pull only the first side of tire over the top of the rim around the whole rim circumference.



Unlock the second bead by pushing it into the rim gorge and continue round the whole rim circumference.



Remove the tire.





MTB WHEELS **TUBELESS UST CONCEPT BENEFITS**

HIGH PERFORMANCE

It is possible to optimize the efficiency and grip by adjusting the tire pressure according to the type of terrain or the style of rider, with less risk of flats, even at low tire pressure.

Therefore, on a dry, rolling terrain, it is better to increase the pressure to reduce friction between the tire and ground for greater efficiency.

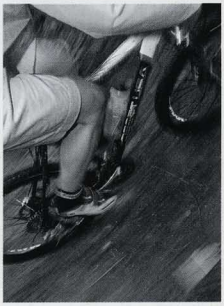
However, on loose or soft terrain, it is better to ride with low pressure to increase the area of contact between the tire and ground, which enhances grip and comfort. It's your choice!

FEWER FLATS

The absence of a tube and rim tape reduces the risk of punctures, especially those caused by shocks, snake bites or deteriorated rim tape.

MORE LIGHTWEIGHT

The weight of a Tubeless UST wheel and Tubeless UST tire is less than that of the traditional wheel + rim tape + tube + tire unit.



To design a UST Tubeless wheel system, you need :



- **a sealed rim and valve.**
- **a mounting concept with a UST tubeless compatible tire.**

The seal of a Tubeless UST rim is assured by the SUP welding process on the rim joint and by the FORE drilling technology. The FORE technology does not pierce the inside of the rim, which guarantees a perfect seal.

The tires are easily mounted without any tools. The inner profile of the Tubeless UST rim has a central groove that receives the tire beads when mounting.

Mavic has developed a Tubeless valve that fits directly in the rim. It is sealed with an O-ring and rubber base.

❶ **Inflating :** When inflating, the beads are pressed against the sidewall of the groove of the rim, which ensures the "primary" airtight seal.

❷ **Locking :** As inflation continues, the beads climb up and along the sidewalls of the groove to lock into place behind the raised ridges. This ensures a perfect seal and excellent tire stability.

Punctures

If perforated (thorn...), the puncture is often slow and not instantaneous, which often allows you the possibility of continuing your ride. The repair can be made simply with a repair patch inside the tire, an anti-puncture spray or even by inserting a traditional tube.

Tire offer : for the 2001 collection, the tire manufacturers that offer Tubeless UST compatible products are the following :

Continental Geax, Hutchinson, Michelin, Schwalbe, Specialized.





CROSSMAX UST

USE :

High performance and Cross Country racers looking for a tubeless system which offers a maximum of performance, efficiency and sensations.

BENEFITS :

Tubeless : greater performance and efficiency / more comfort. / adjustment of the tire pressure to the type of terrain. / fewer flats.

PERFORMANCE: better transmission of effort and greater stability with the Isopulse lacing concept. / stiffer rim with the Fore concept. / Mavic quality bearings. / Ceramic 2 braking surface.

LIGHTWEIGHT : weight of Crossmax UST wheel + tubeless UST tire is the same as the Crossmax + rim tape + tube + tire unit. / Zicral spokes. / FTS hub.

TECHNICAL FEATURES :

Weight : Front : 710g / rear : 860g.

Black anodized Maxtal SUP welded rim.
Fore drilling technology. Ceramic 2 braking surface.
Integrated free wheel hub with FTS system.
Adjustable, removable, sealed cartridge bearings. QRM.
HG compatible free wheel.
Zicral straight pull spokes with integrated aluminum nipples.
Anti-rotation system.
18 front spokes, 20 rear spokes.
Front radial spokes, Isopulse concept rear spokes.
Delivered with the Mavic composite quick release with high ratio closure, adjustment tool, spoke wrench, Chain Disc, UST valve compatible with both Ø 8,5 / 6,5 mm.

Use UST Tubeless tires only, inflation pressure 2 to 4 bars / 30 to 60 PSI.

CROSSMAX UST DISC

USE :

For pushing your limits on paths and single track, all the cutting edge technology has been concentrated in this new Cross Country Tubeless wheel.

BENEFITS :

PERFORMANCE: The ZICRAL spokes and cross pattern ensure optimal transmission of energy. The lateral stiffness is reinforced by the FORE concept. A better grip due to the possibility of rolling with lower tire pressure than a standard wheel built with a tube. There is no brake that is more powerful than a disc brake.

LIGHTWEIGHT : The total weight of this wheel is similar to the weight of the most lightweight standard wheels on the market today. Equipped with the new FTS L concept, which reduces the weight by 40 g, and also ZICRAL spokes. Rim tape is no longer necessary.

Lower risk of flats : The absence of an inner tube, rim tape and drilling inside the rim wall greatly reduces the risk of flats. If there is a puncture, it can easily be repaired with a patch on the inside of the Tubeless tire.

TECHNICAL features :

Weight : Front : 800g / rear : 930g.
Black anodized Maxtal SUP welded rim.
FORE drilling technology
Integrated free wheel hub with FTS L system
QRM quality bearings
8 and 9 speed HG compatible free wheel.
24 front/rear ZICRAL spokes, crossed straight pull with integrated aluminum nipples, anti-rotation system.
Delivered with Mavic quick release skewer, spoke range wrench, adjustment tool, instructions and 180 mm diameter chain-disc.
Disc brake compatible with the international standard : 6 holes - 44 mm diameter, front offset : 10,5 mm/Rear : 15,25 mm.
Compatible with disc brakes: HAYES, SHIMANO, MAGURA.

Use UST Tubeless tires only, inflation pressure 2 to 4 bars / 30 to 60 PSI.





CROSSROC UST DISC

USE :

A concentrate of Tubeless UST technology on a disc wheel for daily Cross Country riding.

BENEFITS :

High performance and efficiency : A MAXTAL, SUP rim, combined with the new FORE concept, provides a strong rigid product. The strength of the MAVIC bearings is exceptional. A better grip due to the possibility of riding at lower tire pressure than with a tube. Finally, there is no brake that is more powerful than a disc brake.

Lower risk of flats : The absence of an inner tube, rim tape and drilling inside the rim wall greatly reduces the risk of flats. If there is a puncture, it can easily be repaired with a patch on the inside of the tire.

TECHNICAL features :

Weight : Front : 850g / rear : 1030g.
Black anodized MAXTAL SUP welded rim.
FORE drilling technology, valve hole : 6,5
8 and 9 speed, HG compatible, steel wheel body
QRM MAVIC quality bearings
24 bent front spokes and crossed rear spokes
Aluminum spoke screws and brass nipples
Delivered with quick release skewers, adjustment tool, instructions,
180 mm diameter chain-disc.
Use Tubeless tires only.
Disc brake compatible with the international standard
6 holes - 44 mm diameter, front offset : 10,5 mm/Rear 15,25 mm
Compatible with disc brakes: HAYES, SHIMANO, MAGURA.

Use UST Tubeless tires only, inflation pressure 2 to 4 bars / 30 to 60 PSI.

CROSSROC UST

USE :

A concentrate of Tubeless UST technology on an "affordable" disc wheel for daily Cross Country riding.

BENEFITS :

High performance and efficiency :
A MAXTAL, SUP rim, combined with the new FORE concept, provides a strong rigid product. The strength of the MAVIC bearings is exceptional. A better grip due to the possibility of riding at lower tire pressure than with a tube.

Lower risk of flats : The absence of an inner tube, rim tape and drilling inside the rim wall greatly reduces the risk of flats. If there is a puncture, it can easily be repaired with a patch on the inside of the tire.

TECHNICAL features :

Weight : Front : 810g / rear : 1020g.
Black anodized, MAXTAL, SUP welded rim
FORE technology, valve hole: 6,5
8 and 9 speed, HG compatible, steel free wheel body
QRM MAVIC quality bearings
24 front bent spokes and rear crossed spokes
Aluminum spoke screws and brass nipples
Delivered with quick release skewers, adjustment tool, instructions,
180 mm diameter chain-disc.
Use with Tubeless tires only.

Use UST Tubeless tires only, inflation pressure 2 to 4 bars / 30 to 60 PSI.





CROSSRIDE

USE :

Mountain bikers who want a strong, high-performance wheel for Cross Country.

BENEFITS :

STRENGTH : SUP double sided rim, eyeleted.
24/28 straight pull spokes.

PERFORMANCE : Mavic quality bearings. / Front radial lacing.
Rear crossed lacing. / UB Control braking surface.

TECHNICAL features :
Weight : Front : 730g / rear : 1020g.
Black anodized 6106 aluminum alloy SUP welded rim.
UB Control braking surface.
Integrated free wheel hub.
Adjustable, removable, sealed cartridge bearings. QRM.
HG compatible free wheel.
Stainless steel straight pull spokes. Anti rotation system on front wheel - Brass nipples.
24 front spokes, 28 rear spokes.
Front radial spokes, rear crossed 3 on free wheel side, radial on other side.
Delivered with quick release skewer, adjustment tool, rim tape and Chain Disc.

For tires and inflation pressures - see page 26

CROSSRIDE CERAMIC

USE :

Mountain bikers who want a strong high-performance wheel for Cross Country.

BENEFITS :

STRENGTH : SUP double sided rim, eyeleted.
24/28 straight pull spokes.

PERFORMANCE : Mavic quality bearings. / Front radial lacing.
/ Rear crossed lacing. / CERAMIC braking surface.

TECHNICAL features :
Weight : Front : 740g / rear : 1030g.
Black anodized aluminum 6106 SUP welded rim.
UB Control braking surface.
Integrated free wheel hub.
Adjustable, removable, sealed cartridge bearings. QRM.
HG compatible free wheel.
Stainless steel straight pull spokes.
Anti rotation system on front wheel - Brass nipples.
24 front spokes, 28 rear spokes.
Front radial spokes, rear crossed 3 on free wheel side, radial on other side.
Delivered with quick release skewer, adjustment tool, rim tape and Chain Disc.

For tires and inflation pressures - see page 26







X-COUNTRY **RIMS**

X 618

• USE :
For rugged all round cross-country use or for racing

• BENEFITS :
Strength from the Maxtal and SUP seam welded rim with double eyelets

• TECHNICAL FEATURES :
Weight : 450 g.
For tires and inflation pressures - see page 26.

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X 221

• USE :
MTB Cross-Country riding.

• BENEFITS :
Double sided, eyeleted rim, that offers braking efficiency with the UB Control.

• TECHNICAL FEATURES :
Weight : 440 g.

For tires and inflation pressures - see page 26.

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X 517

• USE :
MTB Cross-Country racing.

• BENEFITS :
Lightweight performance with the Maxtal SUP welded rim.

• TECHNICAL FEATURES :
Weight : 395 g.

For tires and inflation pressures - see page 26.

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X 317 DISC

• USE :
Cross-Country riding and racing for bikes equipped with disc brakes.

• BENEFITS :
Absence of braking surface, reinforced upper bridge.
A rim specifically designed to withstand the added stress caused by disc braking.

• TECHNICAL FEATURES :
Weight : 395 g.

For tires and inflation pressures - see page 26.

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FREERIDE **RIMS**

F 519

• USE :
Freeride, cross-country.

• BENEFITS :
Strength : wide profile, eyeleted Maxtal rim.
Braking efficiency with UB Control.

• TECHNICAL FEATURES :
Weight : 460 g.

For tires and inflation pressures - see page 26.

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DEEMAX

USE :

MTB downhill racers.

BENEFITS :

STRENGTH : Double eyelet, Maxtal SUP rim.
36/36 straight pull spokes.

STEERING : Wide rim allows the tire to work better for greater steering precision

Compatibility : Compatible with disc brakes with specific adapters.

TECHNICAL features :
Rear : 1390 g / Front axe 9 mm : 1160g / Front axe 20 mm : 1070g.
Maxtal SUP welded rim, yellow Mavic coating.
Integrated free wheel hub with FTS system. Adjustable, removable, sealed cartridge bearings.
HG compatible free wheel.
Stainless steel straight spokes, brass nipples.
36 spokes crossed 4.
Delivered with an adjustment tool, rim tape.
Disc brake adapters sold separately.

For tires and inflation pressures - see page 26.



DOWNHILL **RIMS**

D 321 DISC

- USE :
Downhill racing and training for all bikes equipped with disc brakes.
- BENEFITS :
Bomb proof strength due to Maxtal and SUP.
Incredible steering : with wider rim that offers excellent tire stability.
- TECHNICAL FEATURES :
Weight : 675 g.

For tires and inflation pressures - see page 26.

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D 521

- USE :
Downhill racing and training.
- BENEFITS :
STRENGTH : Maxtal SUP welded rim.
- TECHNICAL FEATURES :
Weight : 590 g.

For tires and inflation pressures - see page 26.

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DISC BRAKE ADAPTERS

For mounting disc brakes

Compatibility : AMP - CODA - FORMULA - HAYES - HOPE - MAGURA - ROCK SHOX - SACHS.

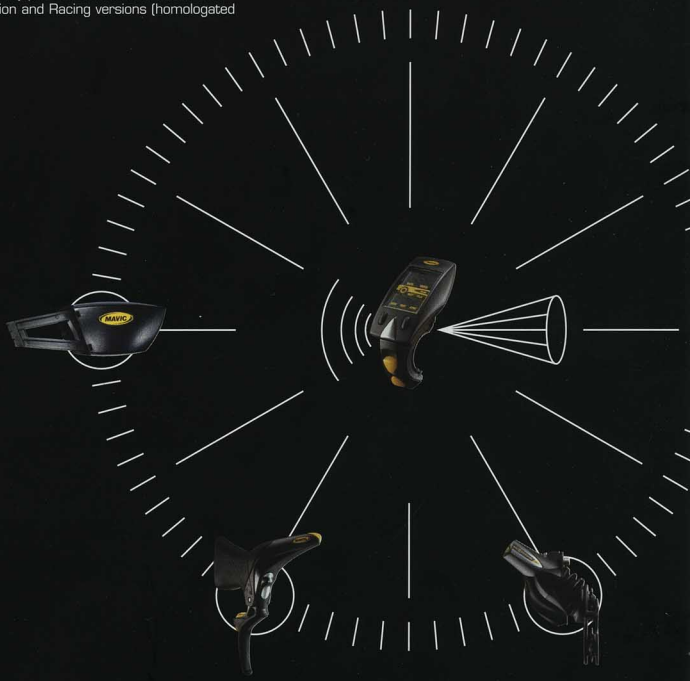


GRUPPOS

Gruppo Ksyrium SSC
Gruppo Cosmic Carbone SSC
Gruppo Classics SSC
Gruppo SSC

Mavic gruppos offer the rider advanced ergonomics and lightweight performance

They bring the latest in high technology, being conceived with the Mektronic wireless electronic trasmission system as the central element. When combined with wheels such as the Ksyrium SSC the rider is equipped with the best tools available for improving performance. This gruppo and the three SSC wheels are the products that are currently used by professional teams. Mektronic brake levers come in multi-position and Racing versions (homologated for racing under UCI rules):





ROAD **GRUPPOS**



The following 9 speed Mavic gruppos are available :

Gruppo Ksyrium SSC Road
Gruppo Ksyrium SSC Triathlon
Gruppo Cosmic Carbone SSC Road
Gruppo Cosmic Carbone SSC Triathlon
Gruppo Classics SSC Road
Gruppo SSC Road
Gruppo SSC Triathlon
The individual gruppo components are also sold separately.

SSC : The name SSC (Spécial service Course) came into being during the 70's with the rim "Blue SSC" which, in the beginning, was reserved for the pros only, the name was reinforced when it was used for the Mavic gruppo " 1000 SSC ". Today's SSC gruppoand wheels perpetuates the tradition of Mavic SSC products as being the marque of the products used by the top pros.





THE MEKTRONIC : 775g.





BENEFITS :

• ERGONOMCS :
Ergonomic brake levers provide an additional aerodynamic position and new braking positions.
Multiple shifter buttons.
Large LCD screen.

• EFFICIENCY :
- Fast precision gear shift.
- Adjustment stability in time due to the wireless transmission.
- Pawl visualization.

• LIGHTWEIGHT :
- Wireless transmission: - more lightweight cable + tube.

ELECTRONIC DERAILLEUR

Wireless electronic derailleur with digitally coded radio waves.
Total capacity : 30 teeth.
Maximum capacity : 28 teeth.
Compatible 9 speed.
Battery length :
2 years or 30 000 km.
Weight : 235g.

COMPUTER BOARD AND SPEED SENSOR

- Multi-purpose computer board with LCD display.
- One shifter button.

• Functions :
- instantaneous speed.
- maximum speed.
- average speed.
- time.
- time passed while riding.
- distance ridden.
- total accumulated distance.
- engaged gear.
- surveillance and diagnosis of the Mektronic system batteries.

Battery length : 3 years or 45 000 km.
Weight : 60g with support.
Wireless speed sensor by radio waves digitally coded.
Weight : 30g.

ERGONOMIC BRAKE LEVER

Ergonomic brake levers with integrated gear shift :
Retro-friction shift system on the left lever assembly.
System with touch sensitive buttons on the right lever assembly.
Integrated brake caliper release on the lever assembly.

• Two versions :
1/ Multi-position ergonomic brake levers offering :
- an additional aerodynamic position.
- two shifter buttons.

For use in time trials, triathlon.
Weight : 385g.

2/ "Racing" ergonomic brake lever assemblies :
- one shifter button.
- compatible with the UCI regulation.

Weight : 385g.









BRAKE CALIPERS





BENEFITS :

• EFFICIENCY :
Double pivot.
Optimization to reduce friction.
R3 concept : leaf spring with unique movement and no friction on the caliper.
Permaglide, anti-friction material helps to reduce the effort needed on the brake lever.
Brake pads optimized for Mavic rims and tires.
Triangular designed caliper shape and computer calculated for maximum stiffness.

• LIGHTWEIGHT :
CAD optimized weight.
Weight : 298g.

FRONT DERAILLEUR

Brazed front derailleur.
Double ring compatible.
Weight : 95g.



CHAIN RINGS

Zicral rings. Optimized teeth shape for easy shifting.
Version : 42 x 52/39 x 53/39 x 52.

CRANKS

Designed to offer optimal stiffness, the cranks are made of forged and machined aluminium.
Dimensions : 170/172.5/175/177.5/180 mm.
Weight : 625 g in 175 mm abd 39 X 52 chainrings.



BOTTOM BRACKET

Bottom bracket shell with 20 mm hollow splined oversize axle with the C3 concept offering light-weight, externe stiffness, and Mavic quality bearings.
Version BSC68/ITALIAN70.
Weight : 180 g en BSC 68.





KSYRIUM SSC

USE :

Touring, road and triathlon racers looking for a comfortable, a ligth aerodynamic comfortable and ultra high-performance wheel for racing on all types of courses.

BENEFITS :

LIGHTWEIGHT : Zicral spokes. / FTS hub. / No rim tape.

EFFICIENCY : Better transmission of effort and better stability due to the Isopulse lacing concept.
Lateral rim stiffness due to the Fore concept.
Mavic quality bearings.

AERODYNAMICS : Semi-profiled rim. / Ultra profiled spokes. / Fewer spokes.

TECHNICAL features :
Weight : Ø 700 Front tire 740g / rear 885g.
Ø 700front tubular tire 700g / rear 860g.
Profiled rim, SUP welded, MAXTAL, FORE concept
18/20 ZICRAL ultra-profiled spokes, ISOPULSE concept
Integrated freewheel hub with new FTS L system
adjustable, removable, sealed cartridge bearings. QRM
version M10 or ED10
Aerodynamic Zicral straight pull spokes with integrated aluminum nipples and anti-rotation system.
18 front spokes, 20 rear spokes.
Radial front spokes, Isopulse rear concept.
Delivered with the Mavic composite quick release skewer with high ratio closure, adjustment tool, spoke wrench and Chain Disc.
For tires and inflation pressures - see page 26.





COSMIC CARBONE SSC

USE :

Triathlon riders and road racers looking for an aerodynamic wheel for riding in all types of course

BENEFITS :

AERODYNAMICS : 50 mm profiled rim. / Integrated nipples. / Flat spokes. Fewer spokes.

STIFFNESS : 20 rear spokes. / Unidirectional carbon. / Smoothness in front : comfort.

TECHNICAL features :

Weight : Ø 700 front tire 880g / rear 1050g.
Ø 700 front tubular tire 885g / rear 1100g.
Ø 650 front tubular tire 730g / rear 995g.
SUP aluminum alloy rim and unidirectional carbon segments.
Double eyelets.
Integrated freewheel hub with new FTS L system
adjustable, removable sealed cartridge bearings QRM
Version M10 or ED10
Stainless steel flat spokes, brass nipples, 16/20 straight profiled spokes.
Radial front spokes, crossed 2 rear on the free wheel side, radial on the opposite side.
Delivered with the Mavic composite quick release skewer with high ratio closure, adjustment tool and rim tape.
For tires and inflation pressures - see page 26.

CLASSICS SSC

USE :

Touring riders and road racers looking for a strong, comfortable wheel for training, all round riding, or racing on all types of courses and the "classics".

BENEFITS :

STIFFNESS : MAXTAL, SUP rim with CERAMIC 2 braking surfaces. 32/32 straight spokes

COMFORT : Flat profile rim. / 3 cross pattern.

TECHNICAL features :

Weight : Ø 700 front tire 840g / rear 1020g.
Ø 700 front tubular tire 770g / rear 940g.
Anodized Maxtal SUP welded rim, hard black finish.
Integrated freewheel hub with new FTS L system
adjustable removable sealed cartridge bearings QRM
Version M10 or ED10.
Black stainless steel straight pull spokes, brass nipples.
32 front and rear spokes.
Front and rear crossed 3 spokes.
Delivered with the Mavic composite quick release skewer with high ratio closure, adjustment tool and rim tape.
For tires and inflation pressures - see page 26.





COSMOS



USE :

a lightweight, high performance road wheel for all types of courses.

BENEFITS :

PERFORMANCE : lightweight Mavic quality bearings

STRENGTH : Aluminium SUP rim
double eyelet
UB control braking surfaces
Integrated freewheel hub
adjustable removable sealed cartridge bearings QRM
24/28 straight spokes
Delivered with quick release skewer, adjustment took and rim tape
Version M10

PERFORMANCE : lightweight, Mavic quality bearings.

TECHNICAL features :
Weight : Ø 700 tire, Front: 750g. - Rear: 1050g.
For tires and inflation pressures - see page 26.









COSMIC ELITE

USE :

Road, touring riders looking for an aerodynamic wheel for rolling roads.

BENEFITS :

AERODYNAMICS : 30 mm profiled rims. / 24/28 straight spokes.

STIFFNESS : Aluminium SUP rim

TECHNICAL features :
Weight : Ø 700 front tire 850g / rear 1095g.
Black anodized aluminum alloy SUP welded rim - profiled eyelet.
UB Control braking surface.
Integrated free wheel hub.
adjustable removable sealed cartridge bearings QRM
Version M10
Stainless steel flat spokes, brass nipples.
20 front and rear straight spokes.
Front radial spokes, rear crossed 2 on the free wheel side, radial on the opposite side.
Delivered with the composite quick release skewer with high ratio closure, adjustment tool, and rim tape.
For tires and inflation pressures - see page 26.

COMPATIBILITY

ROAD WHEEL COMPATIBILITY :

On Cosmic Carbone SSC, Ksyrium SSC and Classics SSC.

Compatibility with 9 speed HG derailleur :

- It is necessary to leave the positionning wedge delivered with the wheel in place on the free wheel body.
- Then mount a Shimano 9 speed cassette.

Compatibility with 10 speed ED derailleurs : 2 solutions :

- Use a Mavic M10 wheel, remove the positionning wedge delivered with the wheel in place on the free wheel body, then mount a Mavic M10 cassette.
- Use a Mavic ED10 wheel and mount a Campagnolo ED10 cassette.

On Cosmos, Cosmic Elite :

Compatibility with 9 speed HG derailleur :

- It is necessary to leave the positionning wedge delivered with the wheel on the free wheel body.
- Then mount a Shimano 9 speed cassette.

Compatibility with 10 speed ED derailleur :

- Use a Mavic M10 wheel, remove the positionning wedge delivered with the wheel on the free wheel body, then mount a Mavic M10 cassette.



Freewheel body ED10



Freewheel body M10



ROAD **RIMS**

CXP 33

• USE :
Road racing and training (road racing race, criterium, triathlon, touring...).

• BENEFITS :
Aerodynamics : 23,5 mm profiled rims.
Lightweight.
Strength : Maxtal SUP rims, profiled eyelet.
A perfect balance between weight / aerodynamics / comfort.

• TECHNICAL FEATURES :
Weight : Ø 700 : 470g. / Ø 650 : 430g.

For tires and inflation pressures - see page 26.

28/32/36
28/32/36
28/32/36



OPEN PRO

• USE :
A great high performance all rounder: Road racing and training (criteriums and triathlons, or even touring...).

• BENEFITS :
Strong and lightweight due to Maxtal, SUP and double eyelets. Efficient braking : UB Control or Ceramic.

• TECHNICAL FEATURES :
Weight : Ø 700 : 425g / Ø 650 : 390g.

For tires and inflation pressures - see page 26.

28/32/36
32/36
32/36
28/32/36
32/36





TOURING **RIMS**

T 221

• USE :
Touring, city bike, trekking

• BENEFITS :
Rim with double sidewalls, eyeleted, UB Control braking sidewalls.

• TECHNICAL FEATURES :
Weight : 490 g.

For tires and inflation pressures - see page 26.

36



MA 3

• USE :
All types of road riding.

• BENEFITS :
Solid, quality braking: rim with double sidewalls, eyeleted, UB Control.

• TECHNICAL FEATURES :
Weight : Ø 700 : 470 g.

For tires and inflation pressures - see page 26.

32/36
32/36
32/36



REFLEX

• USE :
Road racing and training (in criteriums or even for touring...).

• BENEFITS :
Strong and lightweight due to Maxtal, SUP and double eyelets. Efficient braking : UB Control or Ceramic.

• TECHNICAL FEATURES :
Weight : 375g.

Tubular only.

32/36
32/36
28/32/36
32/36



T 519

• USE :
All type of riding : touring, trekking, VTC.

• BENEFITS :
Strength : SUP welded rims, double eyelets.
Braking efficiency : UB Control or Ceramic 2.

• TECHNICAL FEATURES :
Weight : 560 g.

For tires and inflation pressures - see page 26.

36/40
36/40







COMETE

USE :

Road, Triathlon racers looking for a very aerodynamic rear wheel for time-trials or triathlons (road version) and track racers (track version).

BENEFITS :

AERODYNAMICS : Disc wheel with lenticular shape.

STIFFNESS : Aluminum rim and carbon walls laid up in asymmetrical segments.

EFFICIENCY : Mavic quality bearings. / UB Control brake sidewalls (on road version).

TECHNICAL features :
Weight : Road : Ø 700 rear tire 1300g.
Ø 700 Rear tubular tire 1300g.
Track : Ø 700 rear tubular tire 980g.

6106 aluminum alloy SUP carbon walls laid up in asymmetrical segments lenticular shape.
UB Control braking surface (road version).
Adjustable, removable, sealed cartridge bearings. QRM.
Integrated free wheel hub with FTS system.
Screw on free wheel (track version).
Delivered with the Mavic composite quick release skewer with high ratio closure (road version and the adjustment tool).

iO

USE :

Track racers looking for an aerodynamic wheel that offers exceptional performance.

BENEFITS :

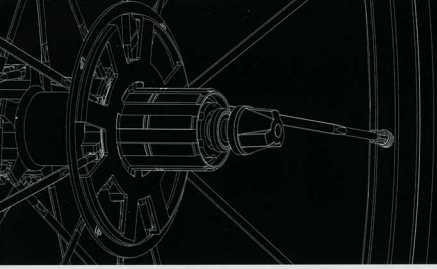
AERODYNAMICS : Profiled spoke wheel. / Very low drag factor.

STIFFNESS : Internal unidirectional carbon structure.

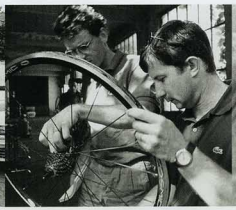
EFFICIENCY : Mavic quality bearings.

TECHNICAL features :
Weight : Ø 700 front tubular tire 750g.
Ø 650 front 700g.

Wheel made of an internal unidirectional carbon fiber structure for maximum stiffness and external woven carbon fiber form.
Hub with adjustable, removable, sealed cartridge bearings.



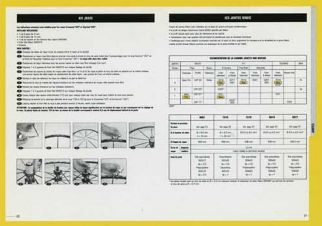






MAVIC SERVICE CENTER





TECHNICAL MANUAL

The evolution and extension of our product lines require us to provide detailed information to our dealers. Also, Mavic has been publishing a Technical Manual since 1997.

The Mavic technical manual is the bible for Mavic products and should be kept in a safe place. When you have a technical question, you should consult your technical manual before contacting the Mavic Service Center. Most often, the answer to your question can be found in this manual:

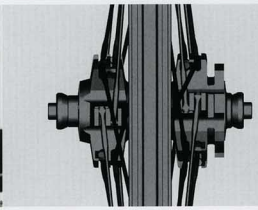
The decomposition of a product
Spare parts and their references
The necessary tools and accessories for different types of repairs
How to make a repair
Technical recommendations
And many other additional points...

The Technical Manual is published at the beginning of every year, and the 2001 edition only deals with the new products that have come out in the 2001 range, but it also provides updates on the technological evolutions of the other products.

In addition, we recommend that you keep every edition of the Technical Manual on hand.

To get a copy of the Technical Manual of the current product line, contact your distributor or MSC (see page 28).







IMPORTANT INFORMATION :

For several years, Mavic has been using the most advanced technology for the design and manufacturing of high performance rims and wheels. However, whatever the brand or type, a rim will not last forever. It is a component that progressively wears depending on the conditions of use : type of riding, terrain, brakes, spoke tension, tires, tire pressure...

We suggest that Mavic wheel and rim users abide by the following recommendations.

HOW TO GET THE BEST OUT OF YOUR RIMS :

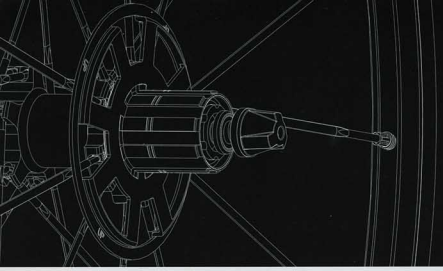
Choose a rim that is adapted to your type of activity.
You must respect the information on tire pressure and dimensions mentioned in this catalogue.
Respect the appropriate spoke tensions. Mavic recommends spoke tension between 90 and 110 kg. Inapropriate spoke tension can create problems.
Clean your rims on a regualr basis. Use a Mavic soft stone designed for this purpose (M40410).
Remove stones or metal particles from the brake pads.
Replace your brake pads when they are worn.

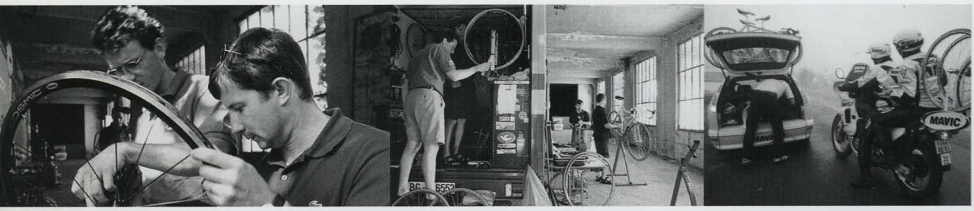


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The indicated wheel weights are +/- 5 %, without rim tape or quick release skewer, but with valve for the Tubeless wheels on the pre-series industrial models. The indicated rim weights are +/- 10 %.

Photos :
C. Bellavia/Editing - D. Brandelet - C. Chaize - G; Watson.







Wheels bags sold separately





TIRE INFLATION PRESSURE GUIDE

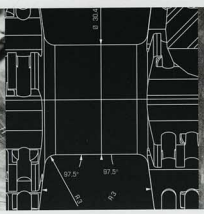
ROAD	
	maximum
Tire width	**BARS >> PSI**
19 to 23 mm	7 to 9,5 >> 103 to 140

TOURING	
	maximum
Tire width	**BARS >> PSI**
28 / 32 mm	7 >> 103
35 / 37 mm	6 >> 88

CROSS-COUNTRY	
	maximum
Tire width	**BARS >> PSI**
1"	7,7 >> 113
1,2"	7 >> 103
1,5"	6 >> 88
1,75"	5,2 >> 76
1,9"	4,8 >> 69
1,95"	4,5 >> 66
2"	4,3 >> 63
2,1"	4 >> 59
2,2"	3,7 >> 55
2,5"	2,7 >> 40

FREERIDE-DOWNHILL	
	maximum
Tire width	**BARS >> PSI**
1"	5,5 >> 81
1,2"	5,2 >> 76
1,5"	4,7 >> 69
1,75"	4,2 >> 62
1,9"	4 >> 59
1,95"	3,9 >> 57
2"	3,8 >> 56
2,1"	3,7 >> 55
2,2"	3,5 >> 52
2,5"	3 >> 44









CASSETTE M10

CONTENTS OF KIT N°1	SPACERS	VERSION	CASSETTE	COGS
11 - 23	YELLOW	9 SPEED	11/21	11, 12, 13, 14, 15, 16, 17, 19, 21
10 COGS : START 11	YELLOW	9 SPEED	11/23	11, 12, 13, 14, 15, 17, 19, 21, 23
9 YELLOW SPACERS	BLACK	10 SPEED	11/23	11, 12, 13, 14, 15, 16, 17, 19, 21, 23
10 BLACK SPACERS				

CONTENTS OF KIT N°2	SPACERS	VERSION	CASSETTE	COGS
12 - 25	YELLOW	9 SPEED	12/21	12, 13, 14, 15, 16, 17, 18, 19, 21
11 COGS : START 12	YELLOW	9 SPEED	12/23	12, 13, 14, 15, 16, 17, 19, 21, 23
9 YELLOW SPACERS	BLACK	10 SPEED	12/23	12, 13, 14, 15, 16, 17, 18, 19, 21, 23
10 BLACK SPACERS	BLACK	10 SPEED	12/25	12, 13, 14, 15, 16, 17, 19, 21, 23, 25

CONTENTS OF KIT N°3	SPACERS	VERSION	CASSETTE	COGS
13 - 27	YELLOW	9 SPEED	13/23	13, 14, 15, 16, 17, 18, 19, 21, 23
12 COGS : START 13	YELLOW	9 SPEED	13/26	13, 14, 15, 16, 17, 19, 21, 23, 26
9 YELLOW SPACERS	BLACK	10 SPEED	13/25	13, 14, 15, 16, 17, 18, 19, 21, 23, 25
10 BLACK SPACERS	BLACK	10 SPEED	13/26	13, 14, 15, 16, 17, 18, 19, 21, 23, 26
	BLACK	10 SPEED	13/27	13, 14, 15, 16, 17, 19, 21, 23, 25, 27

CONTENTS OF KIT N°4	SPACERS	VERSION	CASSETTE	COGS
14 - 25	YELLOW	9 SPEED	14/23	14, 15, 16, 17, 18, 19, 20, 21, 23
10 COGS : START 14	YELLOW	9 SPEED	14/25	14, 15, 16, 17, 18, 19, 21, 23, 25
9 YELLOW SPACERS	BLACK	10 SPEED	14/25	14, 15, 16, 17, 18, 19, 20, 21, 23, 25
10 BLACK SPACERS				

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