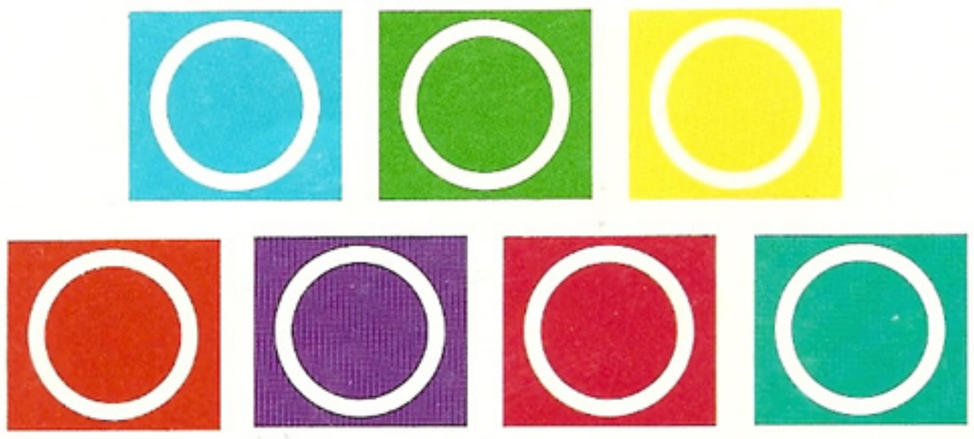
Campagnolo®

# RIM

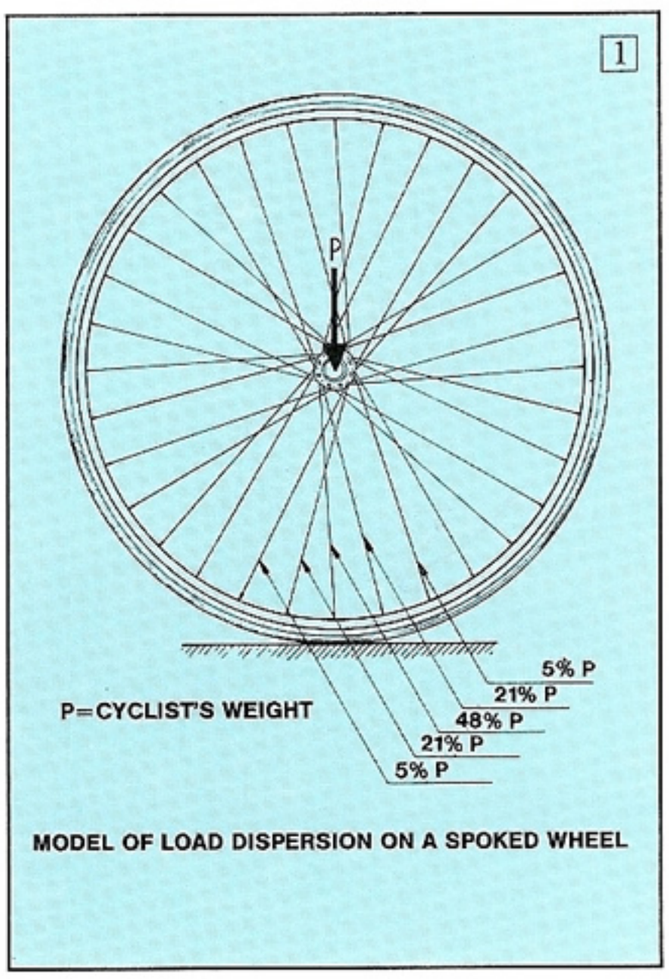


## RESISTANCE TO VERTICAL LOAD

In use, as a result of the racer's weight, the rim undergoes vertical stresses and transversal and torsional stresses due to the forces resulting from pedaling dynamics.

Campagnolo has paid particular attention to determining the resistance of the vertical load since both durability and comfort are directly related to this parameter.

The rim works like a Roman arch which supports itself by dispersing its weight along the circumference. However, in order to support loads which outweigh it without being deformed, the radial tension in a rim with 32 spokes must be greater than 65 Kg; on the back wheel, this tension must be greater than 110 Kg



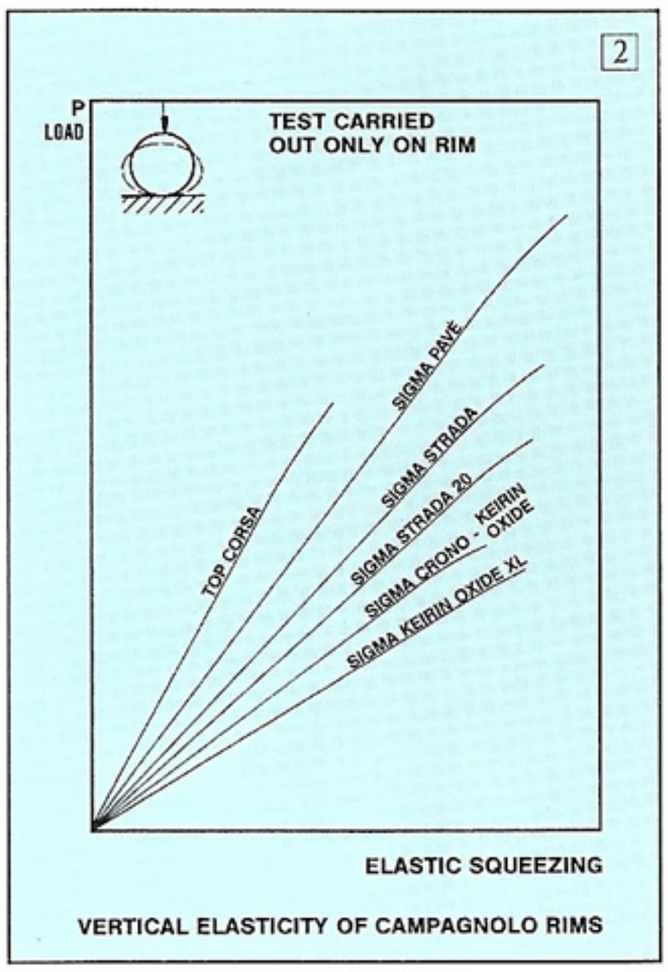
MODEL OF LOAD DISPERSION ON A SPOKED WHEEL

on the right and 60 Kg on the left.

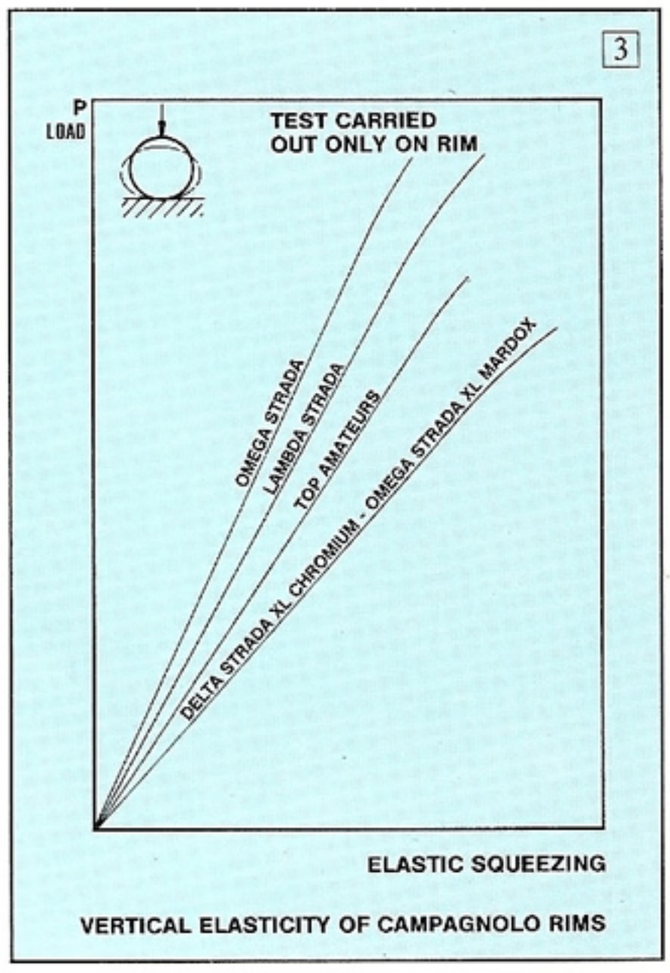
The racer's weight is applied to the hub by studying the behaviour of a spoked wheel fitted with a rim of a known profile, thickness and material, engineers have created a mathematical and physical model. This model enabled the actual stresses on the rim due to the weight to be precisely determined.

The weight applied to the hub is essentially balanced by means of 5 spokes (fig. 1), whose tension is reduced because of the compression. The rest of the system does not undergo important alteration. On the basis of these considerations, Campagnolo has worked out profiles and materials for its whole range of rims that solve both problems: resistance to vertical loads, and comfort for the racer.

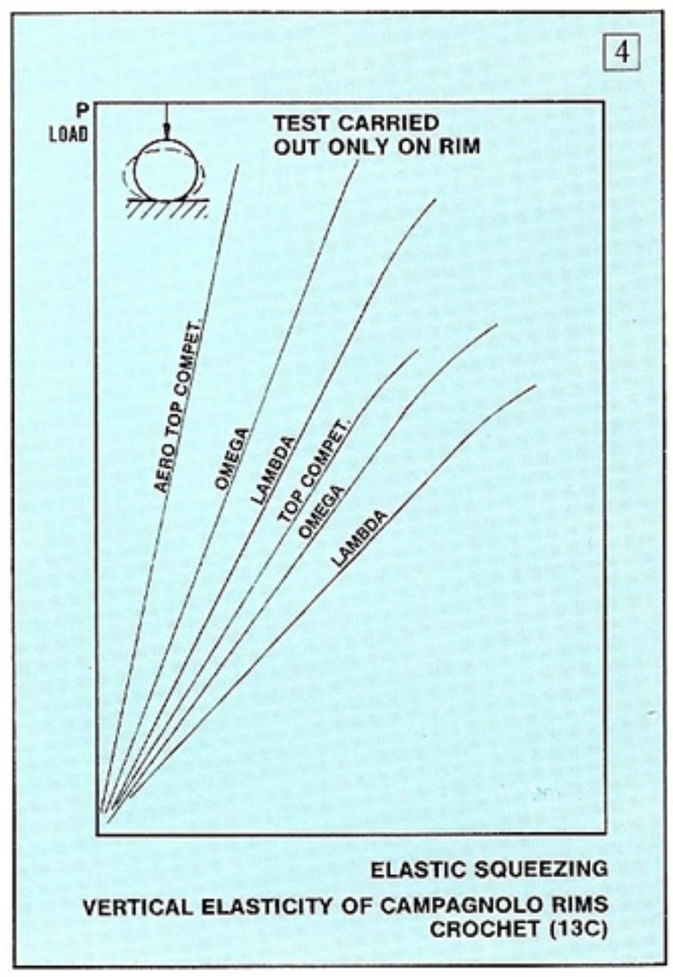
The best level of rigidity of the various rims, as a function of their use, has been determined by means of theorical results and road-tests. Such rigidity ensures the reliability of the rim, even in case of bumps and rough roads, without reducing its elasticity and comfort (figs. 2-3-4).



VERTICAL ELASTICITY OF CAMPAGNOLO RIMS



VERTICAL ELASTICITY OF CAMPAGNOLO RIMS



VERTICAL ELASTICITY OF CAMPAGNOLO RIMS
CROCHET (13C)

## RESISTANCE TO TRANSVERSAL AND TORSIONAL STRESSES

Besides the racer's weight the rim undergoes transversal and torsional stresses resulting from the push on pedals.

The ability to absorb these stresses is fundamental for the reliability and efficiency of the rim.

This feature has been optimized by Campagnolo for its whole range of performance rims and in particular for SIGMA, DELTA and OMEGA rims.

In this way the professional or amateur racer does not waste part of the energy he produces while pedaling.

Transversal loads and absorbing capacity are always checked by Campagnolo's quality control laboratory, which utilizes the most modern equipment.

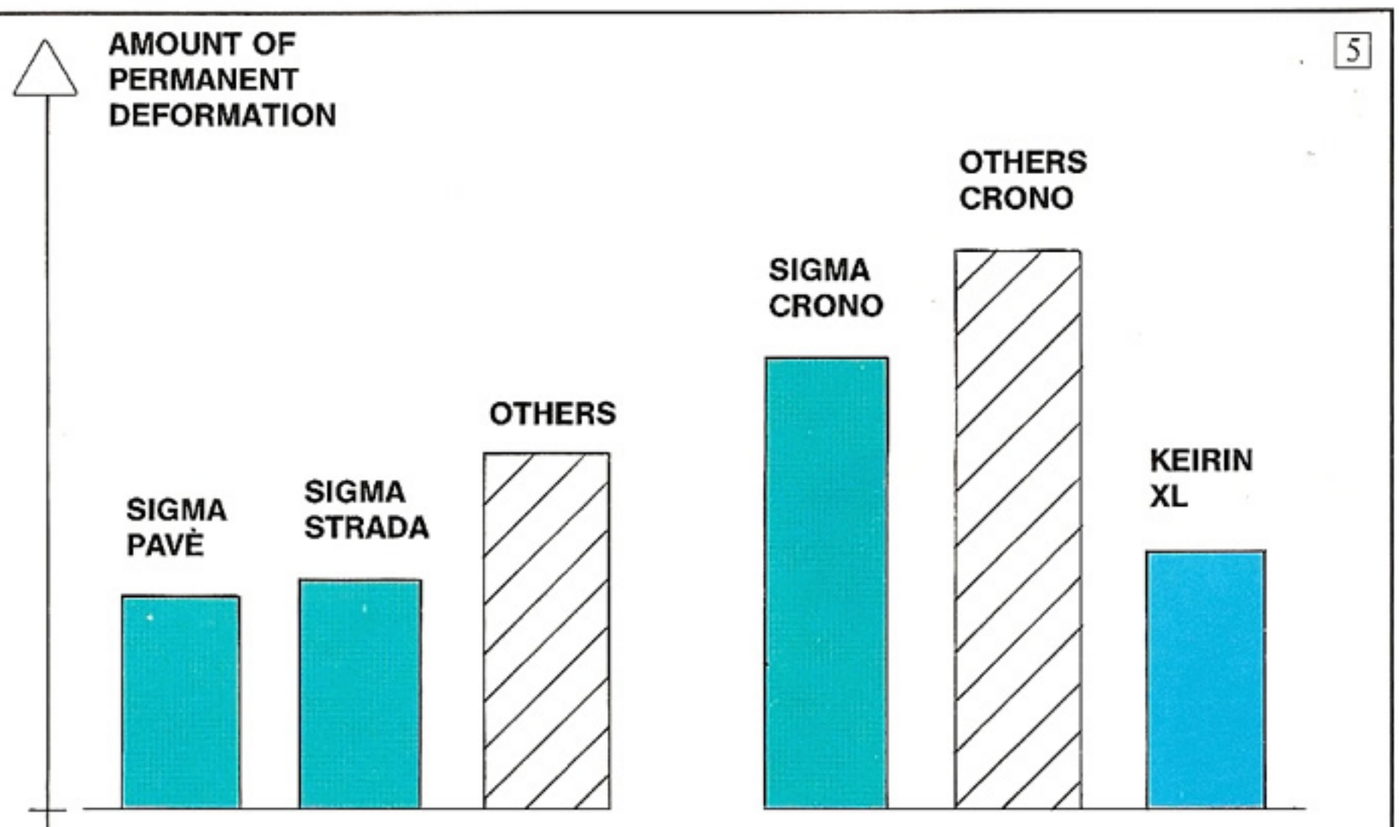
The capacity to absorb transversal stresses (figs. 5-6-7) directly effects the ability of the rim to remain true. No longer will the cyclist's mechanic spend long work



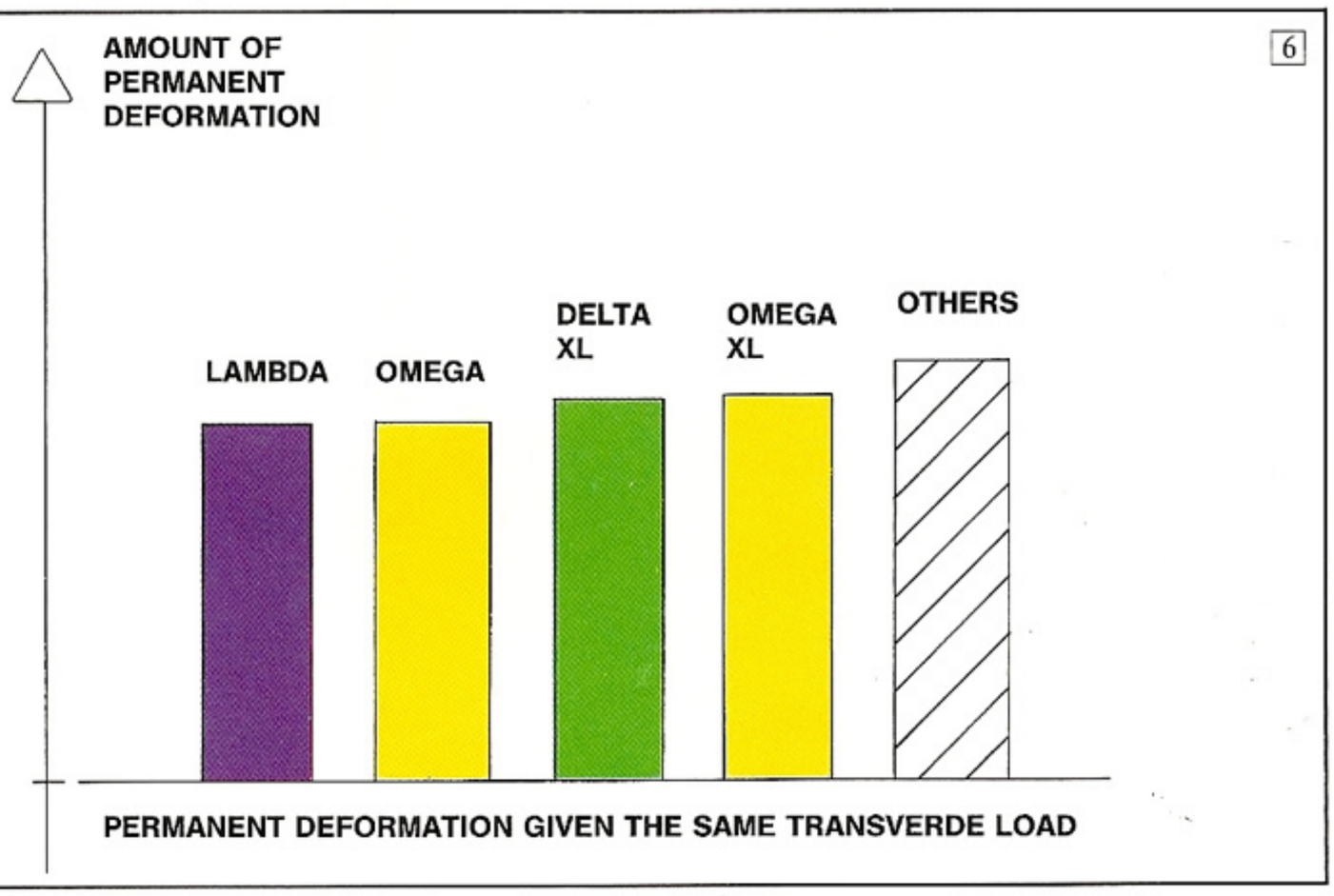
hours re-truing all the wheels at the end of the laps rum on rough roads.

The very high elastic limit (especially in the SIGMA range) gives Campagnolo rims a very high centering reliability during the assembly phase. Thanks to Campagnolo, building a professional wheel in a few minutes will become increasingly common.

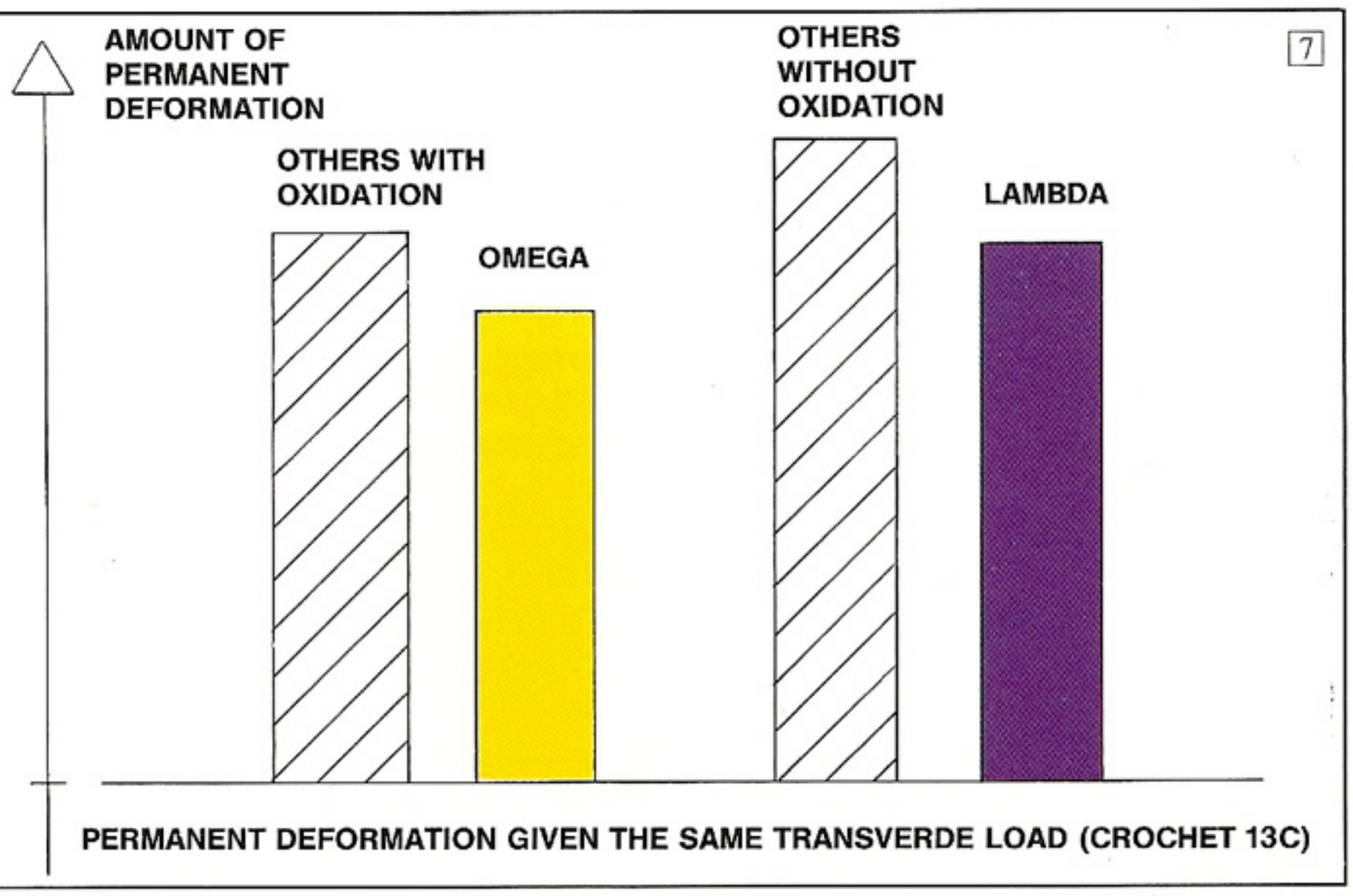
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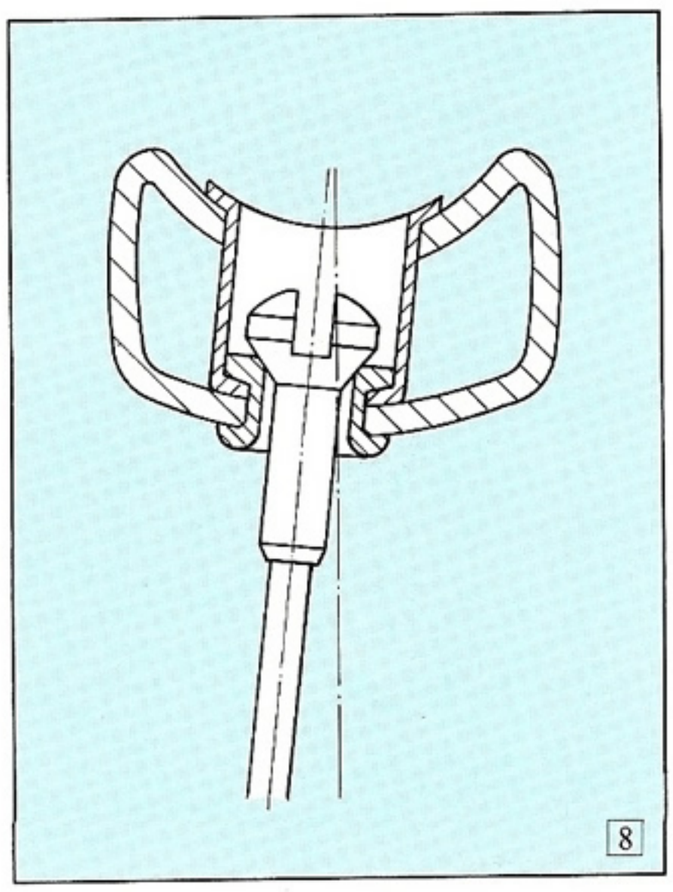

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## PATENTED POSITIONED EYELETS

Campagnolo rims feature an innovative, patented eyelet, which makes the assembly, truing and balancing of the wheel easier.

Campagnolo's zinc-plated, dual position eyelets hold the spoke nipple according to its position: offset to each side of the rim and at an angle of 5 degrees for spoke crossing (figs. 8 and 9). These enable the load to be distributed in part on the tubular seat and in part on the internal cradle



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of the rim, according to a computer model of traction tests.

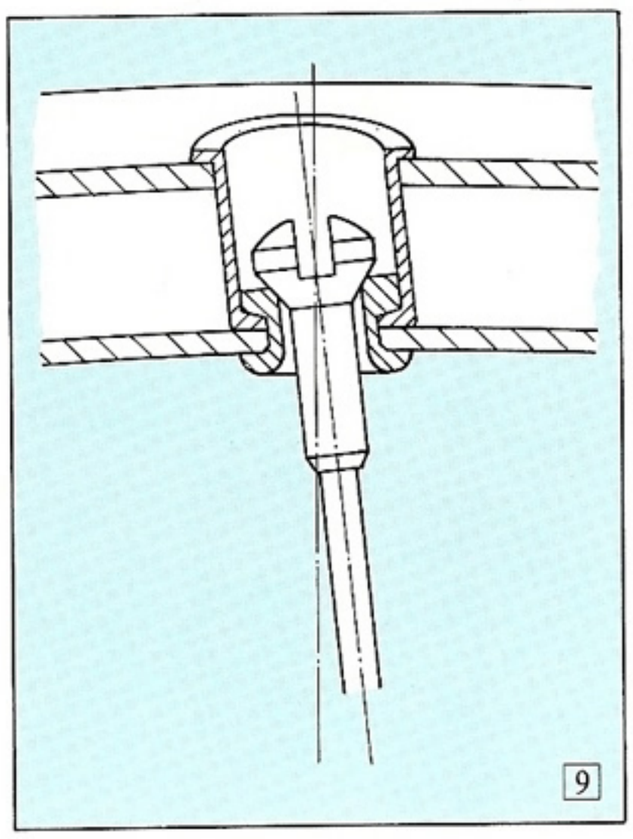
The design of this patented eyelet system reduces stress in the critical zones of spokes and on the hooking of the rim.

All this results in a significant reduction of broken spokes and, above all, in a safe and fast assembly and truing of the wheel, regardless of the system used.

The spoke ferrules are to ISO standards.

## SURFACE FINISHINGS

The surface finishing plays a fundamental role in the life of the rim. The Campagnolo rims are available with several finishings with treatments that have a high resistance in use, as shown in diagram (fig. 11).



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**Chromium**

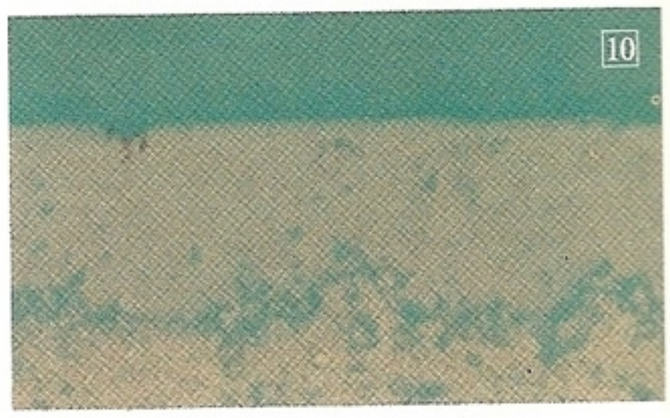
Campagnolo has introduced in its rim range the «CHROMIUM», a surface treatment much more resistent than all those used so far: the chrome galvanic treatment, directly on aluminium (fig. 10).

This is a non-decorative TECHNICAL CHROME finish which gives the rim an appearance that is more like a bar of metal than the image of the mirror-polished surface usually referred to as chromium-plating.

This finishing is used in car and motorcycle engines to coat the cylinders undergoing extremely high stresses due to the friction of the pistons compression rings.

The comparison between «CHROMIUM» treatment and anodic oxydation gave, in wear tests carried out with machines simulating very bumpy roads in critical environmental conditions, the following results: after 30 brakings in areas with water mixed with sand, the best anodic oxidations available today were damaged, while it took 600 brakings to start damaging chromed rims in the same environment.

For those who take cycling seriously, our «CHROMIUM»

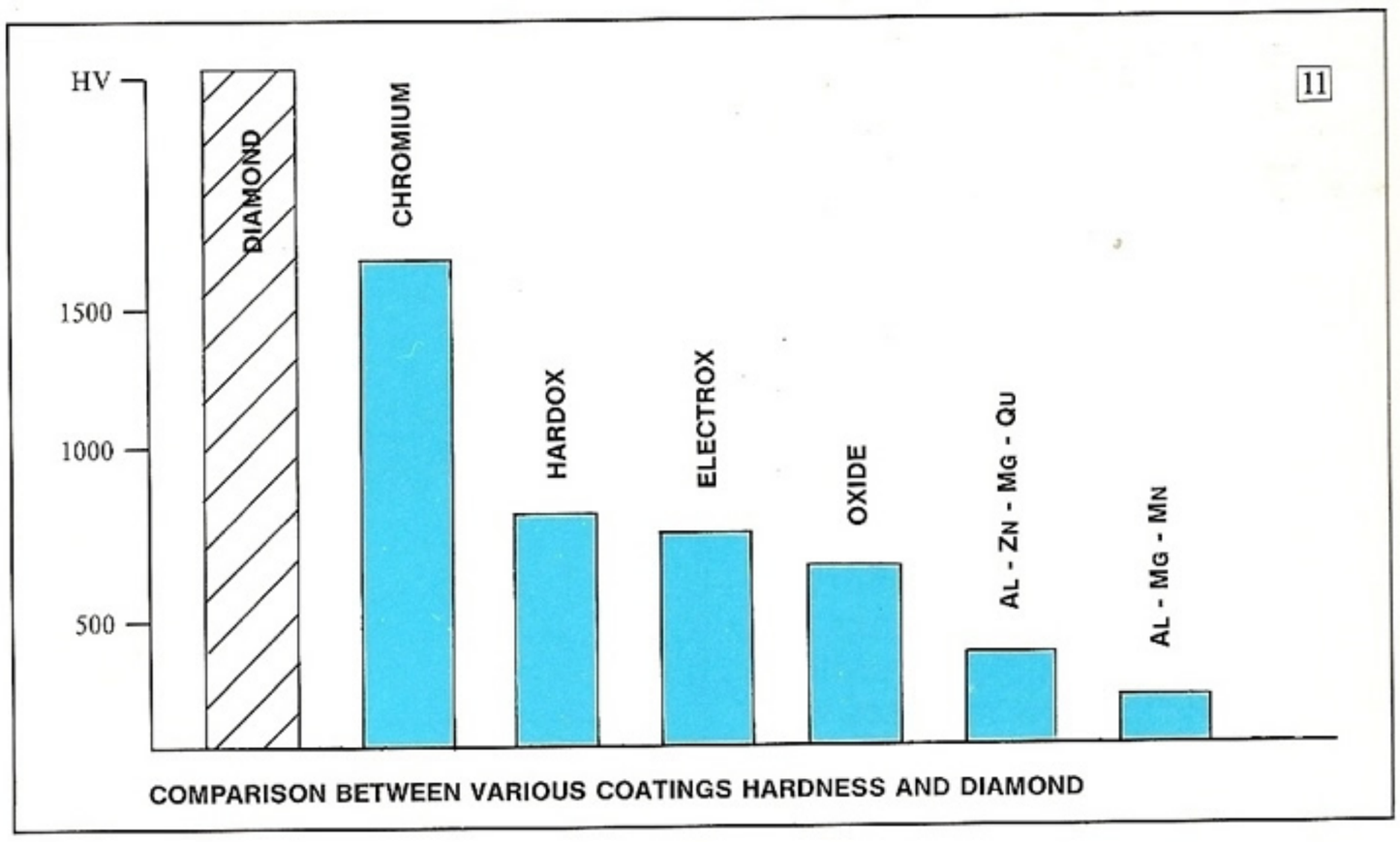


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treatment allows the rims to be kept in perfect condition for the whole season even in adverse weather conditions or seaside locations where the air is damp and salty.

**Hardox**

Campagnolo rims are also available in a hard anodized oxide finish with their characteristic dark color. Hard anodio oxidation is obtained through a galvano-chemical reaction that changes the




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COMPARISON BETWEEN VARIOUS COATINGS HARDNESS AND DIAMOND

outer surface of the aluminum, enriching it with ions from the galvanic bath to increase its hardness. A fringe benefit of this process is an increase in the lateral stiffness of the rim without compromising its vertical elasticity.

There are many kinds of anodic oxidation processes and the «hard» type, used only by a few rim manufacturers, requires the surface treatment to be at least 40 microns deep.




**Electrox**

Through the use of special galvanic baths and an effective anodic oxidation it is possible to obtain a high quality rim with an excellent finish. Campagnolo ELECTROX rims feature an anodized surface layer thick enough to guarantee sufficient protection giving the rim a beautiful lasting finish.

**Oxide**

For cyclists who want their rims to remain like new, regardless of weather conditions, a durable, quality finish is necessary. This is the Campagnolo OXIDE finish, an excellent quality finish, galvanically applied to the rim and refined to such an extent that it protects the rim even from small scratches.



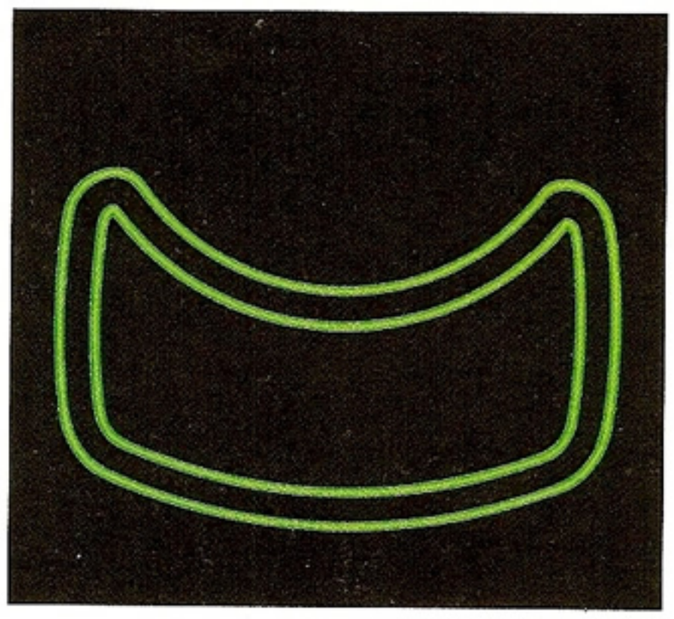

## CROSS-SECTION DESIGN

The study of a rim's cross-section is the most delicate and complex part of the whole design phase. The cross-section of the rim determines its transverse rigidity, vertical elasticity, and weight. In oder to scientificly study rim characteristics Campagnolo's Research and Development Department operates with the assistance of a computer. Using an advanced CAD system, Campagnolo engineers can quickly evaluate the correspondance between design hypothesis and ultimate goals.

A non-shaped 19.4 mm, aluminium tube weighing 400 gr. with a wall thickness of 1.3 mm will have a value of 100 for both vertical and transverse rigidity. If the same tube is processed and shaped according to any one of the cross-section designs for tubular tires the vertical and transversal rigidity values become 38 and 112 respectively. In other words, the rim becomes more comfortable (vertical rigidity 38 instead of 100) and more resistant to transverse thrust (112 instead of 100).

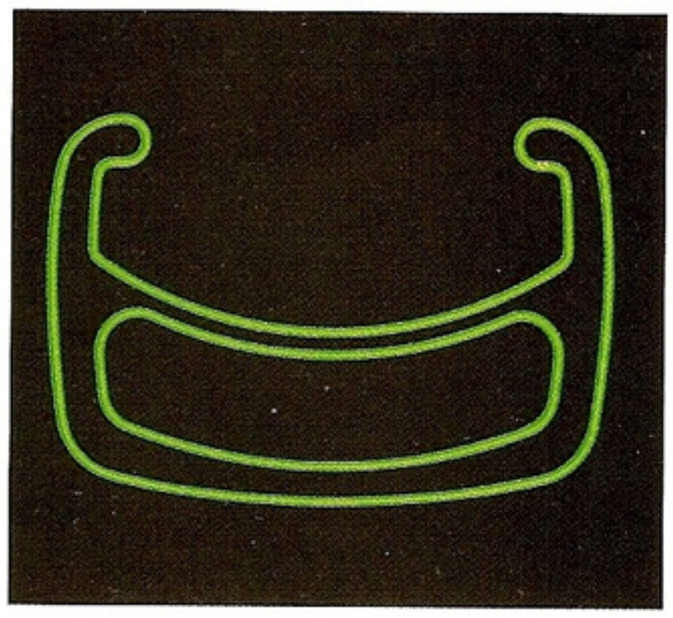
For tubular tire rims, Campagnolo engineers searched for ideal cross-sections, depending on the intended use of the rims, with the aim of obtaining the lightest possible weight, maximum transverse rigidity and optimum verti-

cal elasticity. The cross-section was then calibrated for each rim, considering the optimum distribution of material and the mechanical effects of various geometric shapes.



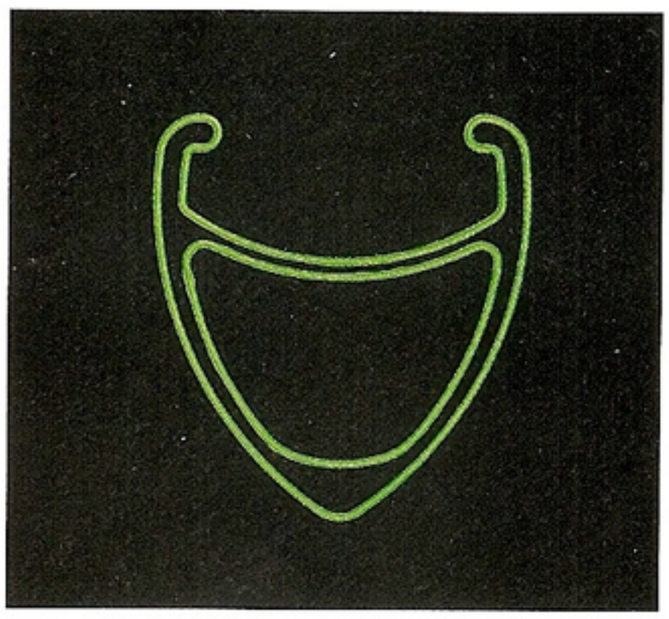
The cross-section design for clincher tire rims is just as important as it is for tubular rims with the additional consideration of the rim's ability to hold the tire bead at pressure above 100 PSI.

The tire bead area of clincher tire rims is critical not only to ensure that tire will remain seated when inflated to high pressure but that the inner tube has no chance of being «pinched» because of rough areas or poor bead design. Campagnolo's design also considers the problems associated with tire mounting. Poor design here can make mounting todays Kevlar or Steel beaded tires a chore. In order to make it easier to inset the whole circumference of the tire in the rim seat, Campagnolo engineers have given a great deal of attention to the depth and radius of the rim bed because the tire bead leans and runs on this area when being mounted.



Computer design coupled with wind tunnel testing has enabled Campagnolo to design an aerodynamic rim whose profile («V Profile») prevents the breakaway of air flow (turbulance). In comparison to a rim with a normal cross-section the special sidewall camber of this Campagnolo's rim substantially reduces the effort required to penetrate air.

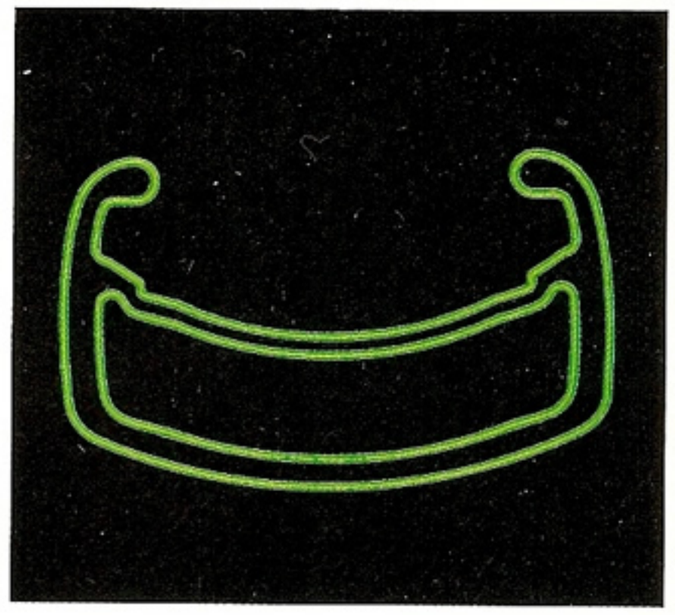
Of all the components in common, during a comparative test carried out in the wind tunnel at 50 km.p.h., the «V Profile» offered aerodynamic resistance 30 gr less than the 300 gr absorbed by a traditional rim. This type of rim



must be fitted with 6-8 mm shorter spokes.

The use of clincher wheels for professional racing has been hindered by three basic factors:
a) weight
b) transverse rigidity
c) comfort, which is less than that offered by tubular wheels.

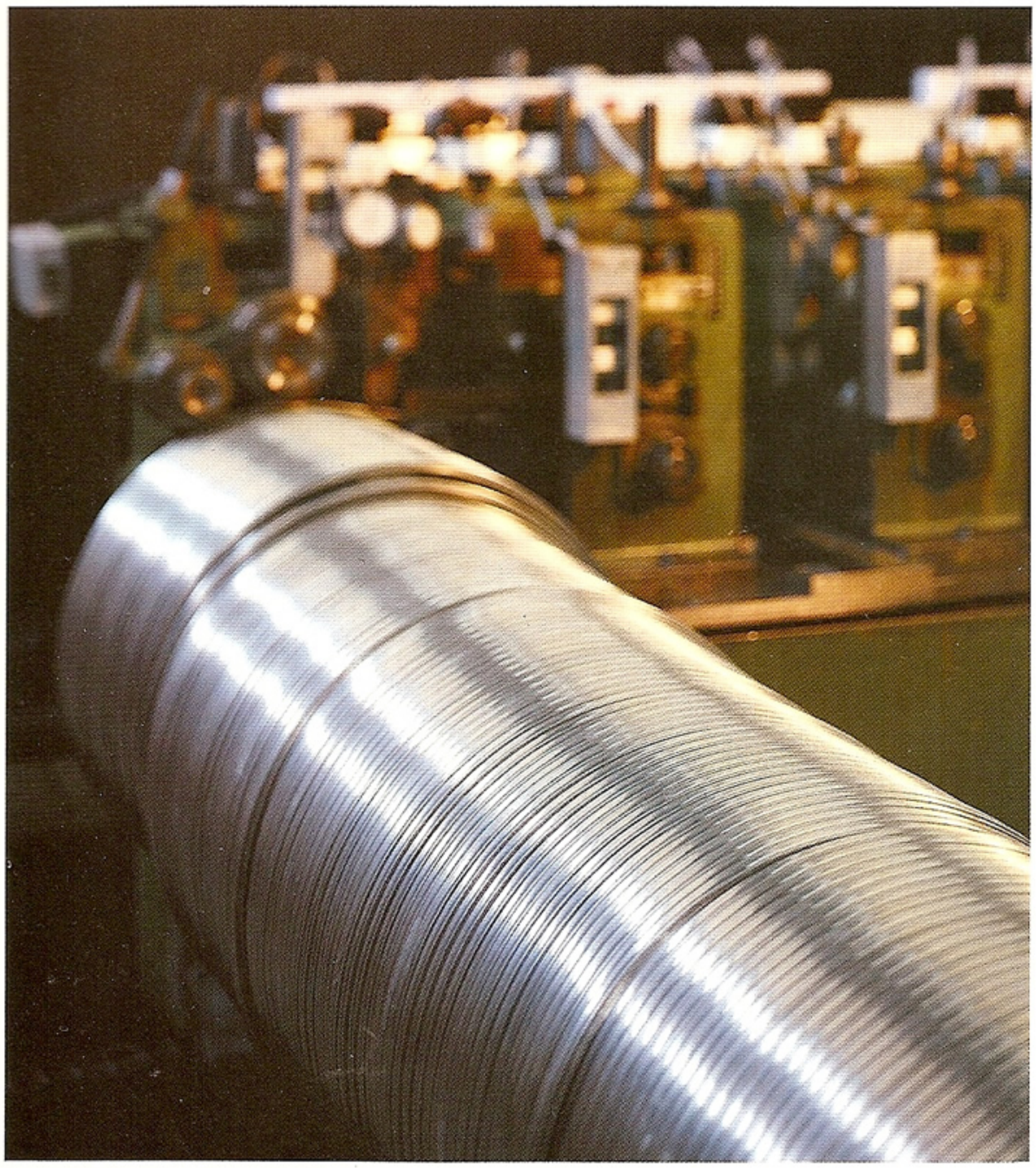
After exhausting researches Campagnolo has designed two new clincher rims: the DELTA XL Strada and the OMEGA XL Strada. Due to their unique cross-section these rims have been able to overcome the rigidity and comfort problems that plague ordinary



rims with the considerable advantage of being 18% lighter.

This special cross-section was designed using a computer in order to determine the optimum distribution of material with relation to the loads and stresses imposed by the effort of the athlete.

For pratical and functional reasons, a cradle for holding the 16 mm. nipple protection ring has been included in the design to prevent it from being fitted out of line.

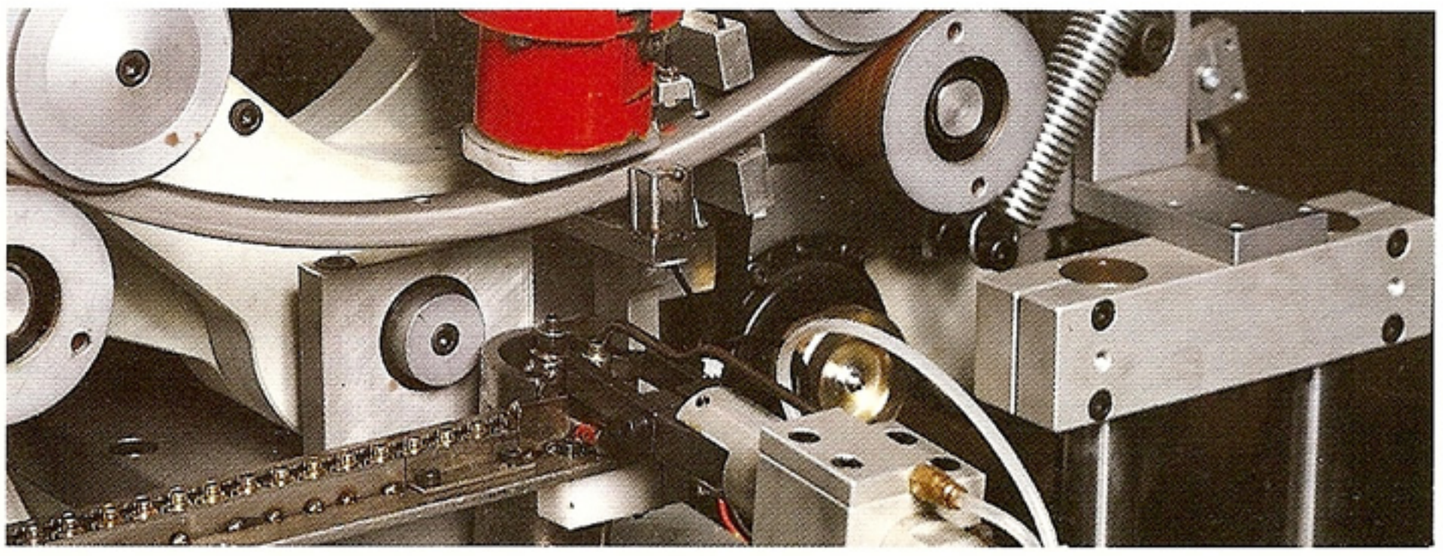


## THE SAME QUALITY FOR ALL RIMS

Each series of rims, from SIGMA to GAMMA, even if designed to meet a particular need, has been developed using the same quality, the same engineering, the same production methods and has undergone the same rigorous quality control tests.

This industrial policy called for a long, careful examination of compatibility and optimization not only of the materials used but also of the production processes and design.

Today, thanks to our intensive research, the most technologically advanced, highest quality rims are available for all cyclists-Campagnolo Rims.



## A SOLUTION FOR ANY REQUIREMENT

Today, Campagnolo offers a variety of 27 different kinds of rims which are divided into two groups: Tubular and Clincher with five different types of finishes among them covering any type of requirement from amateur to professional.

### Tubular rims

The SIGMA series of rims is designed for victory. State of the art technological processes and sophisticated research are combined to give the cyclist a measure of quality and safety never before offered in a rim. Year in and year out our rims are standard equipment for the world's best pro teams, which are considering always more necessary the Ergal performances.

DELTA, OMEGA and LAMBDA are produced using the best materials and manufacturing methods. They are excellent quality, they fully satisfy all of the requirements and are perfect for both those ride a lot and for those who only ride few kilometers a year.

### Chrochet rims (13C)

The use of the light clinchers is increasing, favoured by the research and development of new materials and techniques.

Campagnolo is present in this branch with a complete range of absolute vanguard.

The rim OMEGA XL Strada is born to win. Its lightness gives the utmost in the athletics and can satisfy, with its resilience, the most particular professionals.

The types DELTA, OMEGA, LAMBDA, in the various finishes (Chromium, Hardox, Electrox, Oxide, Lucidato) fully meet the demands both of the cycletourism and of the athletics.

# SIGMA

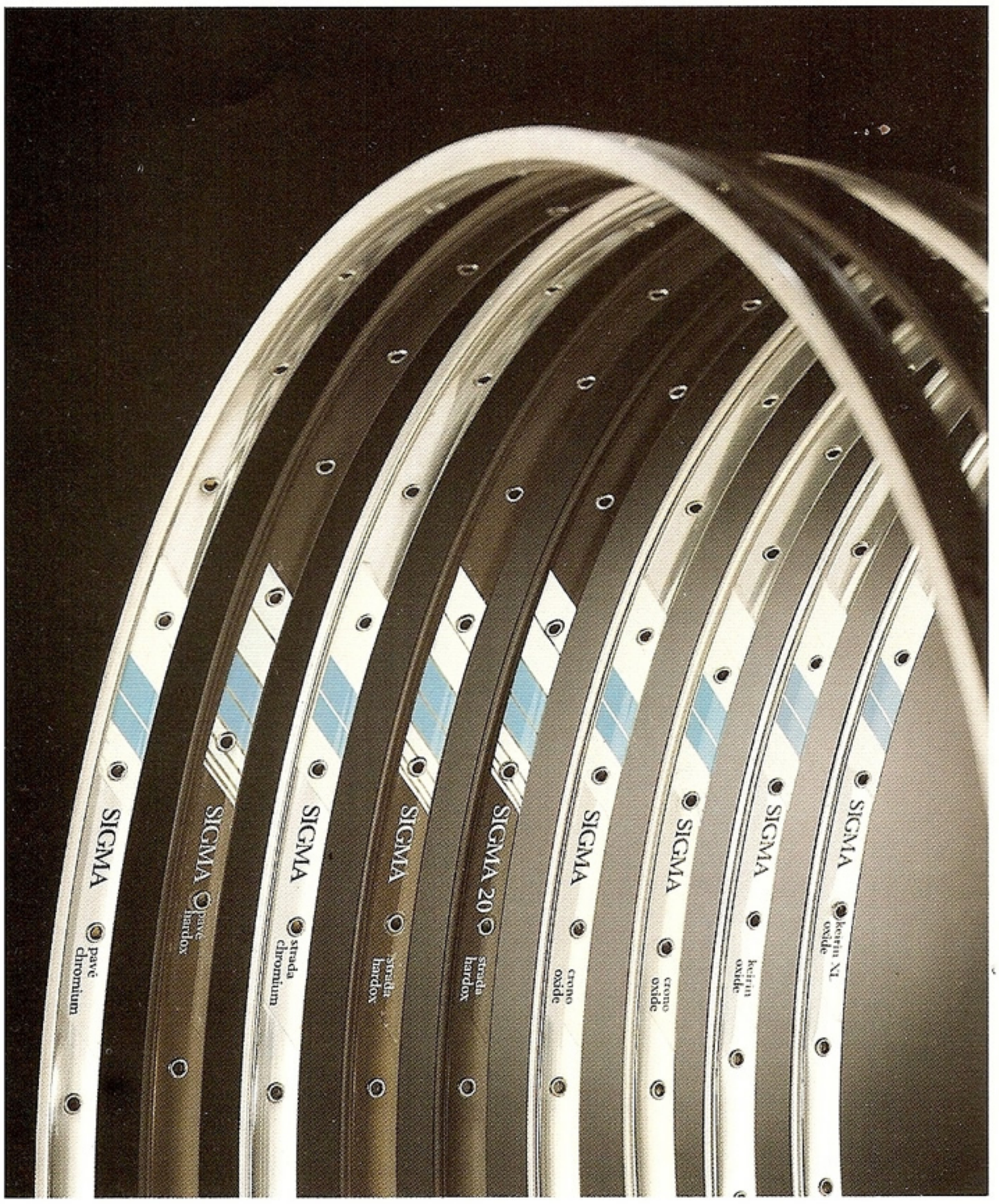
Campagnolo SIGMA rims have been created by the experience achieved through years of races on every road and track in the world, and meet all competitive requirements.

The material utilized, Ergal, an aluminium zinc alloy used in aeronautics, has a very high elastic limit (54 Kg/mm²) and a remarkable breaking load (62 Kg/mm²).

In project design, the highest consideration was given to the rigidity/elasticity combination in order to ensure the trueness of the rim and its ability to withstand deformation under stress, including absorption of impacts.

Thanks to the technology and choice of the material Campagnolo SIGMA rims can easily be trued, this saves mechanics hours of wheel adjustment after a race.

Patented eyelets, positioned according to the camber and the crossing, are safer with regards to the duration of spokes, remarkably reducing the possibilities of breakage in the most critical zones.

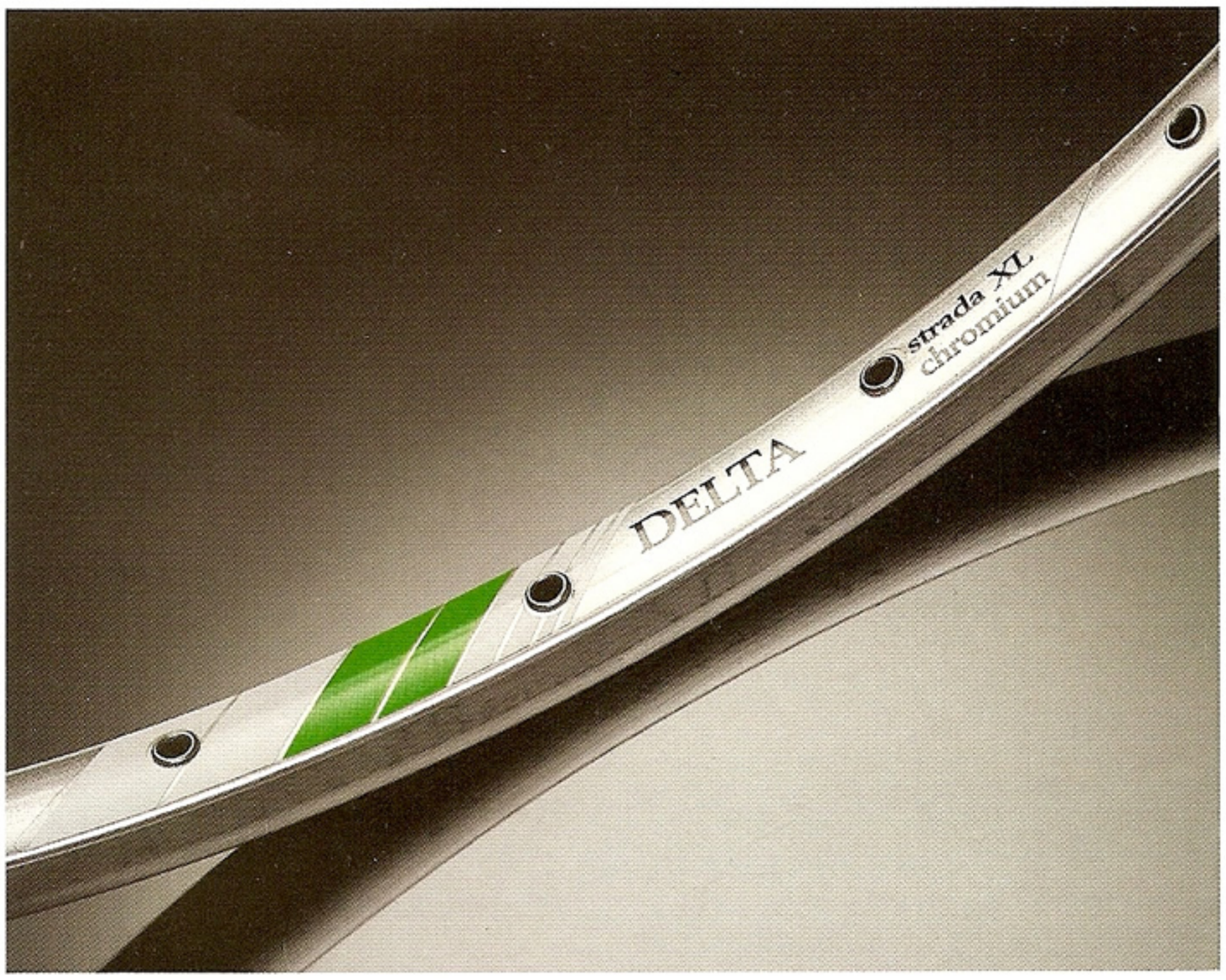



| CAT. NO. | TYPE | FINISH | DIAMETRE | DRILLING | WEIGHT ~gr | WIDTH mm. | THICK. mm. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|---|
| P0061 | SIGMA Pavé | Chromium | 28" (700 C) | 24-28-32-36 | 365 | 22 | 1.1 | Double patented positioned eyelet | Tubolar |
| P0071 | SIGMA Pavé | Hardox | 28" (700 C) | 24-28-32-36 | 365 | 22 | 1.1 | Double patented positioned eyelet | Tubolar |
| P0081 | SIGMA Strada | Chromium | 28" (700 C) | 28-32-36 | 335 | 22 | 1.0 | Double patented positioned eyelet | Tubolar |
| P0091 | SIGMA Strada | Hardox | 28" (700 C) | 28-32-36 | 335 | 22 | 1.0 | Double patented positioned eyelet | Tubolar |
| P0111 | SIGMA 20 Strada | Hardox | 28" (700 C) | 28-32-36 | 345 | 20 | 1.1 | Double patented positioned eyelet | Tubolar |
| P0121 | SIGMA Crono | Oxide | 28" (700 C) | 24-28-32-36 | 285 | 20 | 0.9 | Double patented positioned eyelet | Tubolar |
| P0241 | SIGMA Crono | Oxide | 26" (650) | 24-28-32 | 265 | 20 | 0.9 | Double patented positioned eyelet | Tubolar |
| P0253 | SIGMA Keirin | Oxide | 28" (700 C) | 36 | 285 | 20 | 0.9 | Double patented positioned eyelet | Tubolar |
| P0263 | SIGMA XL Keirin | Oxide | 28" (700 C) | 36 | 260 | 20 | 0.8 | Double patented positioned eyelet | Tubolar |

The weights are for rims without eyelets. Weight of one eyelet: 1,52 gr.

# DELTA

For its DELTA line of rims, Campagnolo uses a special aluminium alloy with a very high elastic modulus and breaking load level. This provides unsurpassed reliability and gives the rim a «memory» making wheel building and truing surprisingly easy. During the design phase of the DELTA rim great importance was placed upon creating a rim that would not only be light weight but also be very resistant to wear. In order to realize these design goals, Campagnolo selected a wall thickness of 1.2 mm and galvanically surface treated the rims with chromium. The results are a 405 gr rim (with 32 eyelets) whose surface is practically unalterable with time and use.




| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0141 | DELTA XL Strada | Chromium | | 20 | 32-36 | 360 | Double patented positioned eyelet | Tubolar |
| P0142 | DELTA XL Strada | Chromium | | 22 | 28-32-36 | 375 | Double patented positioned eyelet | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet (13C) can have a difference of weight by ±3,5%. Weight of one eyelet: for tubolars 1,52 gr., for clinchers 1,14 gr.




TUBULAR RIMS: the weight of the DELTA XL Strada rim makes it the ideal choice for competitive use on all kinds of road surfaces and weather conditions. Its lightness is also an important characteristic for stage races and mountain courses. Due to its chromium surface treatment it has an exceptional resistance to the corrosive action of such atmospheric agents as: sand, rain and salt making it very suitable for the Triathlon, a speciality which exposes the bicycle to particularly harsh environmental conditions.

CROCHET (13C): the DELTA XL Strada rim for clincher tires is a special 22 mm rim designed for professionals. This superb clincher tire rim offers the degree of comfort necessary for long distances and hours in the saddle.

# OMEGA

The Campagnolo OMEGA rims were designed to satisfy the needs of the most advanced cycling amateurs and are available in models for both clincher and tubular tires.

TUBULAR RIMS: in this case, Campagnolo has applied the technology developed for its competition rims, thus giving OMEGA the sporting characteristic loved by bicycle fans.

The material used is the same used for DELTA rims: it gives high reliability. An effective, layered hard anodization finish gives the rim its characteristic burnished color. The OMEGA XL rim responds very well to short and continuous stress typical of uphill or amateur races.




| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0161 | OMEGA XL Strada | Hardox | | 20 | 32-36 | 350 | Double patented positioned eyelet | Tubolar |
| P0171 | OMEGA Strada | Hardox | | 20 | 32-36 | 395 | Double patented positioned eyelet | Tubolar |
| P0162 | OMEGA XL Strada | Hardox | | 22 | 28-32-36 | 375 | Double patented positioned eyelet | Clincher 19-25 |
| P0222 | OMEGA Strada "V Profile" | Hardox | | 20 | 28-32-36 | 440 | Without eyelets | Clincher 19-25 |
| P0172 | OMEGA Strada | Hardox | | 20,2 | 32-36 | 430 | Double patented positioned eyelet | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet profile (13C) can have a difference of weight by ±3,5%. Weight of one eyelet: for tubolars 1,52 gr., for clinchers 1,14 gr.
N.B. «V Profile» rims are supplied without eyelets.




CROCHET (13C): OMEGA rims for clincher tires come in two versions, normal box-section or «V Profile». They are both made of the same heat treated Mg-Si aluminium alloy so their stregth is equal but because no spoke eyelets are used for the model with «V Profile», it is a few grams lighter. The HARDOX anodization which increases the superficial hardness of the rim and the heat treatment which improves the mechanical strength of the material combine to give OMEGA clincher tire rims unparalleled reliability.

# YPSILON

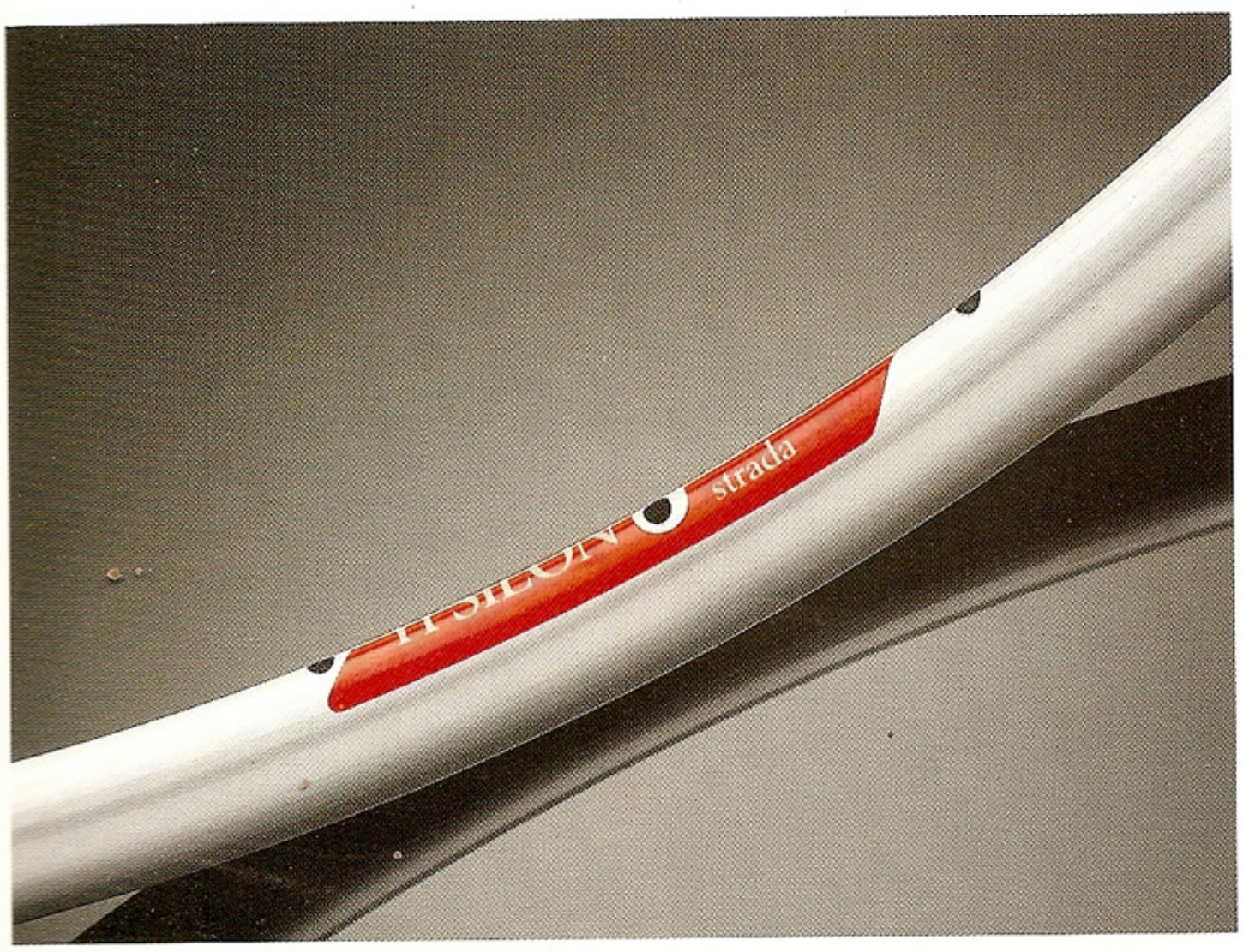
A bicycle is always a pleasure to look at especially if the wheels maintain their aesthetic qualities as time goes by. This is a basic requirement for all bicycles whether they're used for touring or competition. YPSILON with its Oxide finish fulfills this requirement perfectly. It is a light weight, professional quality clincher rim made with an alloy that has superior technical features.

Both its ultimate tensile strength and plastic deformation limit are far above that of other rims in its price range. The Oxide finish amplifies its good qualities even more, giving the rim a very competitive price/quality ratio.




| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0312 | YPSILON Strada | Oxide | | 20,2 | 32-36 | 430 | Double patented positioned eyelet | Clincher 19-25 |
| P0322 | YPSILON Strada "Profil V" | Oxide | | 20 | 28-32-36 | 440 | Without eyelets | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet profile (13C) can have a difference of weight by ±3,5%. Weight of one eyelet: for tubolars 1,52 gr., for clinchers 1,14 gr. - N.B. «V Profile» rims are supplied without eyelets.




Thanks to the galvanic oxidation technique used, the rim is very well protected against corrosion and normal wear and tear.

YPSILON OXIDE clincher rims are available in both normal box section and V-profile versions. The computer designed V-profile rim has been wind tunnel tested to find the optimum balance between aerodynamics and the rigidity necessary to deliver the maximum amount of power to the road.

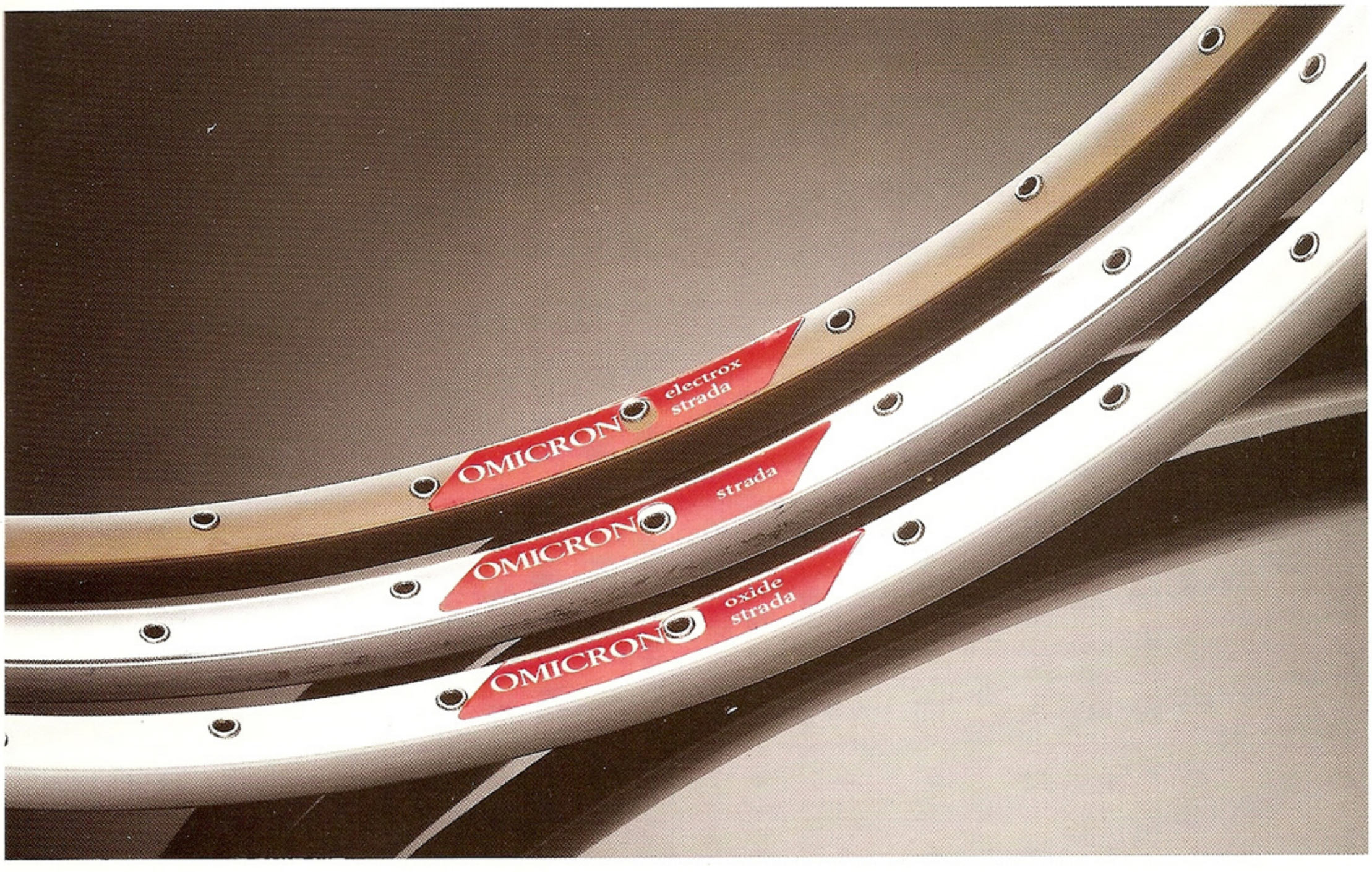
# OMICRON

The OMICRON series has been made especially for the OEM. In fact, it has been designed for use with automated wheel building machinery.

Because it features Campagnolo's patented, double oriented spoke eyelet, it is well suited for the rigors of cycle touring.

Its heat treated aluminum alloy gives it the strength necessary for carrying extra loads. OMICRON rims are available in three versions: Polished, Oxide and Electrox.

There are a wide variety of models to satisfy a wide range of needs, all bound to the common denominators of Campagnolo quality and precison.




| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0272 | OMICRON Strada | Polished | | 20,2 | 32-36 | 480 | Double patented positioned eyelet | Clincher 19-25 |
| P0352 | OMICRON Strada | Electrox | | 20,2 | 32-36 | 480 | Double patented positioned eyelet | Clincher 19-25 |
| P0362 | OMICRON Strada | Oxide | | 20,2 | 32-36 | 480 | Double patented positioned eyelet | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet (13C) can have a difference of weight by ±3,5%. Weight of one eyelet: for tubolars 1,52 gr., for clinchers 1,14 gr.

# LAMBDA

Campagnolo LAMBDA rims are also produced in clincher and tubular versions.

TUBULAR RIMS: from a technological point of view, LAMBDA tubular rims are similar to those designed for all-out competitive use but without the high price normally associated with such technology.

The patented Campagnolo eyelet is mounted on the LAMBDA rims as well.

The aluminium/magnesium alloy used has an elastic module of 7100 Kg/sq mm. This allows machine centering and balancing of the wheel without problems. The mechanical characteristics of the material and the profile projected for the LAMBDA rims give these products a capacity to absorb impacts which is essential for comfort. And it does this without compromising the security of the hold and the non-deformability of the rim.




| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0211 | LAMBDA Strada | Polished | | 20 | 32-36 | 395 | Double patented positioned eyelet | Tubolar |
| P0232 | LAMBDA Strada "Profil V" | Polished | | 20 | 28-32-36 | 440 | Without eyelets | Clincher 19-25 |
| P0212 | LAMBDA Strada | Polished | | 20,2 | 32-36 | 430 | Double patented positioned eyelet | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet profile (13C) can have a difference of weight by ±3,5%. Weight of one eyelet: for tubolars 1,52 gr., for clinchers 1,14 gr. - N.B. «V Profile» rims are supplied without eyelets.




CROCHET (13C): LAMBDA rims for clincher tires, just like their OMEGA counterparts, are designed in two versions: with normal and «V Profile» and these new Campagnolo rims use the same heat-treated aluminium alloy normally found in rims costing twice as much. This superior aluminium alloy combined with Campagnolo's ultra-modern manufacturing technique guarantee that wheels built with LAMBDA rims will look and perform like new for months to come.

# GAMMA

This is a product designed for the OEM. It is also designed for use with automated wheel building machines and offers a superior quality/ratio.

Utilizing heat treated aluminum alloy it features well balanced transverse and vertical rigidity factors, qualities necessary for good stability at the output point of automated assembly.

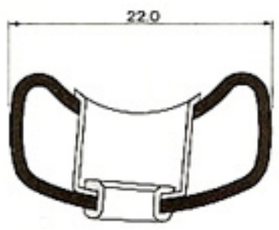
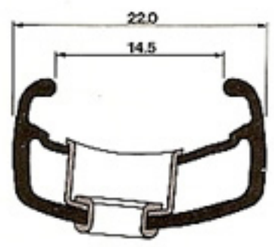
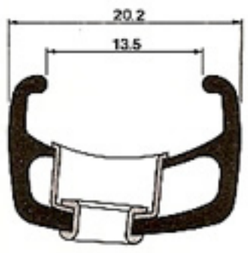



| CAT. NO. | TYPE | FINISH | PROFILE | WIDTH mm. | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|---|
| P0282 | GAMMA Strada | Polished | | 20,2 | 32-36 | 480 | Single eyelet | Clincher 19-25 |
| P0332 | GAMMA Strada | Electrox | | 20,2 | 32-36 | 480 | Single eyelet | Clincher 19-25 |
| P0342 | GAMMA Strada | Oxide | | 20,2 | 32-36 | 480 | Single eyelet | Clincher 19-25 |

The weights are for rims without eyelets. The rims with Crochet (13C) can have a difference of weight by ±3,5%. Weight of one single eyelet 0,46 gr.

## TIRE SUITABLE FOR CAMPAGNOLO CROCHET RIMS

| CAT. NO. / TUBOLAR | P0142 | P0162 | P0222 | P0172 | P0312 | P0322 | P0232 | P0212 | P0272 | P0352 | P0362 | P0282 | P0332 | P0342 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700×19 C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 700×20 C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 700×23 C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 700×25 C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 700×28 C | ● | ● | | | | | | | | | | | | |

| TUBULAR PROFILE | CAT. NO. | TYPE | FINISH | DRILLING | WEIGHT ~gr. | EYELET | TIRE |
|---|---|---|---|---|---|---|---|
|  | P0061<br>P0071<br>P0081<br>P0091 | SIGMA PAVÈ<br>SIGMA PAVÈ<br>SIGMA STRADA<br>SIGMA STRADA | CHROMIUM<br>HARDOX<br>CHROMIUM<br>HARDOX | 24-28-32-36<br>24-28-32-36<br>28-32-36<br>28-32-36 | 365<br>365<br>335<br>335 | double patented positioned eyelet | tubolar |
|  | P0111<br>P0121<br>P0241<br>P0253<br>P0263 | SIGMA 20 STRADA<br>SIGMA CRONO<br>SIGMA CRONO<br>SIGMA KEIRIN<br>SIGMA XL KEIRIN | HARDOX<br>OXIDE<br>OXIDE<br>OXIDE<br>OXIDE | 28-32-36<br>24-28-32-36<br>24-28-32<br>36<br>36 | 345<br>285<br>265<br>285<br>260 | double patented positioned eyelet | tubolar |
|  | P0141<br>P0161<br>P0171<br>P0211 | DELTA XL STRADA<br>OMEGA XL STRADA<br>OMEGA STRADA<br>LAMBDA STRADA | CHROMIUM<br>HARDOX<br>HARDOX<br>POLISHED | 32-36<br>32-36<br>32-36<br>32-36 | 360<br>360<br>395<br>395 | double patented positioned eyelet | tubolar |
| CROCHET PROFILE | | | | | | | |
|  | P0142<br>P0162 | DELTA XL STRADA<br>OMEGA XL STRADA | CHROMIUM<br>HARDOX | 28-32-36<br>28-32-36 | 375<br>375 | double patented positioned eyelet | clincher 19-25 |
|  | P0172<br>P0312<br>P0212 | OMEGA STRADA<br>YPSILON STRADA<br>LAMBDA STRADA | HARDOX<br>OXIDE<br>POLISHED | 32-36<br>32-36<br>32-36 | 430<br>430<br>430 | double patented positioned eyelet | clincher 19-25 |
|  | P0222<br>P0322<br>P0232 | OMEGA STRADA V PROFILE<br>YPSILON STRADA V PROFILE<br>LAMBDA STRADA V PROFILE | HARDOX<br>OXIDE<br>POLISHED | 28-32-36<br>28-32-36<br>28-32-36 | 440<br>440<br>440 | without eyelets | clincher 19-25 |
|  | P0272<br>P0352<br>P0362 | OMICRON STRADA<br>OMICRON STRADA<br>OMICRON STRADA | POLISHED<br>ELECTROX<br>OXIDE | 32-36<br>32-36<br>32-36 | 480<br>480<br>480 | double patented positioned eyelet | clincher 19-25 |
|  | P0282<br>P0332<br>P0342 | GAMMA STRADA<br>GAMMA STRADA<br>GAMMA STRADA | POLISHED<br>ELECTROX<br>OXIDE | 32-36<br>32-36<br>32-36 | 480<br>480<br>480 | single eyelet | clincher 19-25 |

Campagnolo reserve the possibility to modify the technical specifications of the products without notice.
Campagnolo decline all responsabilities for any improper use or tampering of the products.

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