TATUUS
RACE CAR MANUFACTURER

MAGAZINE

TATUUS STORY:
Thirty years of success

PY 012:
The Prototype of the future

LUCA GHIOTTO:
"I'm studying to become a champion"

T.R.A
TATUUS RACING ACTIVITY
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THE HISTORY

"That bet with Renault"


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Thirty years of racing, adventures and success. From Formula Monza to Formula Renault 2000, from Formula Ford to the new challenges in the world of prototypes. Tatuus Racing was founded by Artico Sandonà and Gianfranco De Bellis in 1980 and has built an international reputation in motorsports based on passion, efficiency and the ability to provide top-quality products at competitive prices, together italian, or more specifically, Lombardian business flair.

«Tatuus was born in the 1980s as a consequence of my partner Artico Sandonà's passion for racing and Formula Monza in particular», explains Gianfranco De Bellis from his office in Concorezzo, in the province of Monza. «His father had a carprentry firm, but it was there that he built his first racing cars. As a driver I was also involved in Formula Monza; when I retired from racing it was our shared passion that brought us together».

For those who don't know, the name Tatuus comes from "Tato", which was how Artico Sandonà's family called him when he was little. And this is reflected in the love and care that has been lavished on Tatuus Racing over the years.

«I attended the scuola federale di pilotaggio (federal driving school) in 1982 and now, many years later, we're responsible for their cars», recounts De Bellis. «I had to take the train to get to the course because I hadn't a car at the time, I even used to cycle to the races at Monza: but those were different times. One of the instructors was Alberto Colombo, the owner of the historic Sanremo Racing team. He noticed my enthusiasm, that I was good in looking for sponsors, and offered me a job as team manager. It was a dream come true. When Alberto retired from racing, I created a company providing teams with a complete range of services such as printed postcards, photographs, stickers and hospitality, together with another youngster from Monza who followed Formula Monza as a photographer, and who is unfortunately no longer with us.

During my stay at Sanremo Racing I realized that was the kind of service teams could benefit from. A few years later we entered into a partnership with Sandonà, who was looking for someone to contribute to the development of his team, and not long after I found myself in sole possession of 50 per cent of the company».

The turning point came at the beginning of the 1990s, thanks to an opportunity provided by Renault.

«At the end of 1994, Renault put forward a proposal for a new championship based on cars with a tubular chassis, a new engine and gear-box. Since the competition was open to all-comers, I contacted them. It was immediately apparent that it represented a golden opportunity for the European market. We would be competing against some of the top manufacturers, so it was the perfect chance to see if we were up to the challenge».

«At that time Dallara was just starting to take the fight to the British teams - continues De Bellis – the biggest names were Van Diemen, Swift and Martini from France. The first year we showed up with 3/4 cars, making very little headway: the teams weren't interested in buying our models. However we learned to appreciate just how much effort Renault Sport was putting in to promote the sport. They gave us a real break because, after seeing our project, they bought the first car. Rather than cash, they paid us with 3/4 kits which were worth about 60 million Lire at the time».

This was just what we needed but once again it was business skills – courage, professionalism, and love for innovation – together with our passion for racing, that were instrumental in converting this opportunity into success. «That's how it all started», continues De Bellis. «We had a slice of good luck, which is always important, but also the courage to do something different from the other manufacturers. That car was a great success. The first year we achieved 6 pole positions in 10 starts in the European championship. The car was plagued by electrical problems but we won all 4 races that we managed to finish».

And in 1996 we received 35 orders. «At that time there was the European championship, the British, German and Spanish one: and we won them all. The following 5 years we won 4 European, 4 British, 4 German, 2 Spanish and one French championship. In '98-'99, 70 per cent of the teams were using our cars. We built over 100 cars, and we were always present in order to provide teams with spare parts during the race meetings. We offered a different type of service, organising tests during the winter and sharing the costs. We decided to share our information with →

Gianfranco De Bellis and Artico "Tato" Sandonà

Domenico Porfiri (Renault Italia) and Gianfranco De Bellis

Corrado Casiraghi
"Complete flexibility and collaboration with the teams, that's the Tatuus style"

Corrado Casiraghi, an aeronautical engineer from Milan Polytechnic, is one of the young stalwarts of Tatuus. He is responsible for design, especially the aspects involving aerodynamics, and technical support for the teams. «I turned up at Tatuus with my curriculum in hand – he explains – but I picked up my passion for motor sports by osmosis, since I was born and grew up just outside the circuit in Monza».

How is the work organised at Tatuus?
«We're a small company, and this means that people's roles are not rigidly defined, which is positive. The consequence of this is that the work ranges from designing components to providing teams with technical support during testing. I'm involved in the design process up to a certain point, then, once the work starts in the wind tunnel, my job takes on a more experimental aspect.
The greater part of my involvement with the teams centres on providing instructions and information mainly concerning the management of the car and the acquired data. For example, the main difference between our most recent projects, Formula Abarth and the Prototype, and our more "traditional" models, such as the Renault 2000, is that the quantity of information acquired is much greater, due to the increased complexity of data gathering systems.
The upshot is, besides defining the racing set-up and other purely technical activities that vary from team to team, that we spend much time in providing the teams with instructions, including some quite basic concepts. We try to provide the best possible support in order to help the teams grow and get the best out of the cars».

Could you give us more information about your last two projects?
«The Abarth is an interesting project since its main objective is keeping costs and construction times to a minimum. We tried to do as much as possible right at the start of the design stage, integrating studies that had been carried out for other cars. We've had a bit more time on the Sport project. We're still coming to grips with the concept of the car and working to improve it as we go forward with the development stage. We learnt a lot because it involves many new concepts – on-board systems, lights, fuel systems for duration races – that we had never taken into account before».

What makes the Italian approach to engineering different from the british one?
«Italian approach is more versatile and elastic than british approach. In UK, once a system has been established it's difficult to imagine it being turned upside down. In Italy we concentrate more on trackside management and car costs than on purely technical and performance based approach. And in this country we also boast designers who are capable of optimising overall performance, not only from a management point of view but also in terms of technical specifications».

An example?
«In a way it all started with the carbon fibre chassis at Tatuus, even though I wasn't working here then. In british vision it probably seemed impossible to build a car with a carbon fibre chassis on that budget, because their concept of chassis is the only one they know: the Formula 1. Naturally it's impossible to achieve Formula 1 performance due to the type of materials and fittings that have been used: a lot of things have been sacrificed in order to keep costs to a minimum. It's difficult to imagine anyone who's grown up in Anglo-Saxon engineering culture being willing to take such risks».

Which project are you most enthusiastic about?
«I'm very excited about Sport cars, which we are still getting to know, and that are much closer to our own sector than to Formula 1. Formula 1 is a completely different world. The P2 projects still represent a step beyond anything we have been involved with in the past, but the underlying philosophy is not entirely incompatible. I see it as our next goal, very demanding, but also extremely interesting».

teams and to offer our set-ups. It was an entirely new approach that helped a number of small teams to take their first steps up the ladder».


Gianfranco De Bellis and Giancarlo Minardi

The most important step – together with fair share of anxious moments - came with the birth of Formula Renault 2000. «The price of the cars just kept growing every year», explains De Bellis. «Until Renault had the brilliant and brave idea (thanks to Christian Contzen, Daniel Charles and Domenico Porfiri of Renault Italia) of inaugurating a single brand championship featuring identical cars at an "impossible" price. They convinced us not to worry about the initial losses and promised us their support and the guarantee of four championships. We were requested to build 80 cars with no guaranteed sales, at a price of 30 per cent less than the previous year's model. Not only did we have to keep costs to an absolute minimum but the project was also to include the carbon frame, approved by FIA in 2000, and a sequential-manual gear-box that no one had ever used before: it was adopted in Formula 3 in 2003, three years later. Sandonà and I literally didn't get any sleep for months. The contract was highly challenging and there were numerous penalties, but we knew that Renault trusted in us».

A "skill" capable of overcoming even the most unexpected difficulties. «The bank had guaranteed us a line of credit but when the contract changed, the banking parameters changed with it. We'd been with Renault for 5 years, so we were aware of the qualities of the people we were dealing with and we decided to throw ourselves wholeheartedly into the venture. We presented the body and the engine with Contzen, Charles and Porfiri in June '99. We prepared a brochure the night before using a series of drawings because that was all we had: then, the following week, the orders just started flooding in, with down-payments that no one had expected, not even the teams themselves. The question on everyone's lips was: if the price of the car is 32,500 euro, how much does the engine cost? And the gear-box? At that time, cars based on tubular chassis, with an 8 valve engine, 5 speed H configuration gear-box, brakes and limited aerodynamics were sold for around 95 million Lire, equivalent to 47-48 thousand euro today.

In the end it was necessary to postpone the first race of the 2000 European championship because we had too many orders and we just couldn't keep up. We ended up working night and day, Saturdays and Sundays included. There were just 25 of us, plus the sub-contractors we used to assemble some of the parts, and we were forced to assemble the bodies standing up as there was so little space. But the the great success that is Formula Renault 2000 was born. After 10 years and two modification kits we had built over 900 cars. Some years the cars were involved in up to 13 different Formula Renault 2000 competitions all over the world».

As I said, a success story started with a bet. «In more recent times we have collaborated with Renault on Formula Renault 1600, Renault V6, as well as the FC 106 with Honda, Toyota and Nissan for the Japan, Formula Toyota, Formula Master.

We can't thank enough Renault because I'm not sure I would have entrusted such an important project to a company like ours if the roles had been reversed. It's also true that we put everything we had, and more, into the project. So part of the merit is ours too».

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Tatuus factory in Concorezzo

Brandon Maisano with the PY 012 at Magione 2012

Luca Orlandi
"Freedom and autonomy: motorsport helps you develop as a professional"

Luca Orlandi graduated in Mechanical Engineering from the Faculty of Engineering at the University of Brescia under the tutelage of Engineer Gadola. «At Tatuus», he explains, with a smile on his face, «I'm responsible for designing practically anything you can think of, ranging from the cars, through the installation of components such as the Magneti Marelli electrical gear-box, to the models for the wind tunnel. This means that I'm less involved in the trackside aspects. In practice I act as a supervisor: I observe what happens to the cars, interview the teams, try to understand their requirements, process them and offer solutions. I don't help the teams directly but try to understand and interpret the problem. I only intervene on the project when it is absolutely necessary».

How did you end up at Tatuus?
«I didn't initially intend to get involved with racing cars. I've always been passionate about motorcycles and my ambition was to design bikes. However, when I completed my studies I was offered the chance to work at Tatuus and now I really don't know if I would swap it for anything else. The great thing about this job is the freedom that it gives you, the autonomy to make your own choices».

Are you another "convert" to the Prototype program?
The "Sport" project has really caught my interest because my thesis was based on a small Cn, so I'm using all the experience I gained while preparing for that on the project. The longer races of the VdeV and Speed championships are more stimulating from a design point of view. If we talk about pre-race organisation and track strategy, there's much more than in Formula, where the race is limited to half an hour and the cars are only on the track for 2 or 3 hours over the whole weekend. It's my top priority at the moment».

Is it still possible for the production car industry to benefit from racing technology?
«At Tatuus while we were designing the car in the wind tunnel we also began to work on a small, hybrid city-car: from this point of view it's the ideal job because it gives you the chance to grow and gain experience, even if the city-car is just a project for the time being. We built a prototype with an electric motor in collaboration with Engineer Giancarlo Bruno».

Does the experience of working in the motorsports sector lead to professional opportunities outside the racing world?
«The knowledge and expertise that I have acquired have helped me to develop both from a personal and a cultural point of view. I think this would serve me in good stead outside the racing environment or even the automobile sector as a whole».

Tatuus, the challenges

"New markets and competition our real aim is continuity"

From the adventure in Formula Renault Alps, featuring very promising young Italian drivers such as Fuoco, to the desire for new challenges, this is how Tatuus has grown. With the same passion, the experience accumulated season after season and sophisticated tools such as the wind tunnel used to test the prototype of the PY 012 that will be participating in the VdeV championship. The guidelines behind the company philosophy are simple but very important. «Our priority is the customer», explains Gianfranco De Bellis. «We're aware that we're a small company, and it's our good fortune to employ people who love this sport and who have a background within it. It's thanks to them that we always manage to fulfill our commitments. Our customers know us well: they know that if they call us at midnight we'll be there for them. We owe our beginnings to Formula Monza and the Monza racetrack represents a resource and an enormous reservoir of personnel for us. Engineers, mechanics, drivers: Alboreto started out in Formula Monza, as did Stefano Modena and Fabrizio Barbazza». Proud of having created an Italian approach to engineering,
in the footsteps of and in parallel with the achievements of Gian Paolo Dallara in Emilia-Romagna, and of having achieved a leading position at international level.
«Over the last 15-20 years, together with Dallara, we have managed to shift the balance of power in the motor racing world away from British dominance. Maybe we haven't received as much recognition or assistance as we would have liked from our institutions, the Region of Lombardy or the Italian System, but this is a common problem for many small-scale skilled industries. Ferrari attracts 99 per cent of the attention. Don't misunderstand me: Maranello deserves all the recognition it gets and represents something that all italians can be justly proud of. However this can sometimes obscure the achievements of others. One thinks of Minardi, a truly exceptional person: 20 years in Formula 1, I would have never had the courage to do what he did, without any benefits in return. If he'd been born in Great Britain he'd probably be known as Sir Minardi by now».
The battle to convince the traditional markets that Italian products are reliable, or rather excellent, has been won. But it's important to move on to new challenges and new horizons, and not to rest on laurels.
«We have always enjoyed competing against others», confirms De Bellis. «In 97-98-99 we competed in Formula Ford in the United States and it was a great experience: we sold cars, there was a great deal of enthusiasm. That was another adventure for us: after we'd produced the car we shipped it over to America just to see how we would get on. We travelled around the States with a map in our hand, but we managed to win the first race and finished the championship in second place. The market was beginning to open up, but in '99, after signing up with Renault, we didn't feel that we could take it any further. It was the right decision; perhaps we could have made the extra effort, →

Eugenio Bardoscia

"The integration between Cfd and the wind tunnel has changed the way we design"

Eugenio Bardoscia, who is 39 years old and has been with Tatuus since 2004, is an aerospace engineer from the aerospace engineering department in Pisa. «Computational fluid dynamics (Cfd) is still part of the syllabus in Pisa – explains Bardoscia – and it was there that I first encountered these techniques, although the first applications were in other sectors and had little to do with motorsports».

Tell us a little about your professional career
Towards the end of the 1990s I was working in highly specialised sectors in Pisa. These included a series of collaborations between Ferrari and my department in order to evaluate Cfd as a tool used in conjunction with wind tunnel. This type of numerical investigation was then extended to other highly competitive sectors, for example the boats used in the America's Cup. For the first few years of the new millennium most of the publications dealing with Cfd focused principally on motorsports or the automotive sector. But now this tool has become so widespread that motorsports has almost been relegated to a niche, due to the increasing use of simulation for practically every aspect».

What is Cfd and what is it currently used for?
«The evolution of the software permits us to combine fluid and structural simulations; coupling these results together in order to obtain values that can assist during the design decision-making process, before the first prototype has even been built, represents a great advantage. We now talk in terms of simulation-driven design. The various design phases must be integrated and compared».

How do you make use of this winning compromise at Tatuus?
«I'm mainly involved with fluid dynamic simulations. Since we've been using this tool at Tatuus, any of our cars has gone through this initial study phase, which is also used extensively when designing the prototypes. It's the starting point for the development and for the subsequent stage when we move up to 1:1 scale modelling. You could define it as the first leg for the Cfd studies, since in order to arrive at a definitive version of those lines it is necessary to evaluate innumerable other versions, some of which are entirely different; a selection process that gradually permits us to "freeze" the various parts of the car. Naturally this should not be seen as a final result, rather as the outcome of the initial study period, and we continue to refine and tweak the lines as the process moves forward».

How important are these technologies for a company like Tatuus?
«In some ways it makes more sense for a small company such as Tatuus to use them. We work on limited budgets, so carrying out a large number of preliminary simulations helps to limit the number of errors further on down the line. Preparing a model for the wind tunnel is a costly business, therefore the more simulations you perform beforehand the less time you lose later. Another aspect is the amount of resources that this tool requires. The cost of hardware has risen dramatically over the last 10 years, therefore it is now necessary to consider reinvesting in other ways by increasing the number of software licences, for example, since their cost remains high».

Do you think it will ever be possible to produce a car that has been designed entirely in the lab?
«It's already been tried in Formula 1, the old Virgin model was reputedly designed exclusively in the laboratory. But it will always be a compromise: once the model makes it to the wind tunnel, every measurement has its own inherent error and uncertainty. They can be checked against each other, but they must be tested on the track too. In the past the wind tunnel existed without the benefit of Cfd, but now, thanks to the assistance provided by the latter, it's possible to reduce the time we spend in the tunnel».

What project are you working on at the moment?
«The prototype: a new car which represents a radical departure for the company, although we're investing all our experience from Formula racing in the project. We started from a blank page, and day after day we came up against new problems that had to be solved. Even in perspective it throws up some very interesting new ideas.
It's like turning over a new page and starting out all over again, which is always a stimulating experience. Also, thanks to the flexibility of the tools, we have been able to respond to a wide range of differing requests, and develop on all fronts. It's possible to simulate and refine anything that moves around the surface of the vehicle, whether it's air or a fluid».

With this in mind, do you think that Tatuus could take on projects outside the motorsports sector in the future?
«Everything points towards a future where there is more common ground between the various sectors. Historically, the company built racing cars because it was founded by people who had a passion for racing and the skill to turn it into a business. Therefore there's no reason why the company might not expand into other areas, either for personal or business reasons. And since we're talking about fluids in movement, applying the same principles to either aeroplanes or boats would be a very interesting option».

but we have no regrets».
The new adventure in the world of prototypes offers the opportunity to return to this sector: «over the last 12 years, during which we have produced over 1300 cars, we have always striven to serve these customers, as well as the Chinese, Japanese, Brazilian and Mexican markets. We have never had the time to get back to competition, and we miss that aspect, which is why we were interested in designing and producing the prototype car that is already generating unexpectedly positive results. We have never been involved in producing cover-wheel vehicles before and it was a pleasant surprise for us. We found the opportunity to use carbon bodies, with brand new projects, and we feel that it is more compatible with our structure and technical skills. Not least because nowadays it is increasingly difficult to identify the aim of the competition, and the only market that is currently open is Formula 3. We are aware the Italian market boasts a truly phenomenal manufacturer – Dallara – with whom we enjoy a very good relationship. We are looking for demanding challenges that will enable the company to continue developing in the future. We do not currently have the financial resources to rival Dallara, maybe one day....: it would be very interesting. But not for now».
Designing for the future also means the ability to diversify, identify new partners, and keeping a close eye on the developments in expanding markets. «Nowadays there are by far less people getting involved in motorsports due to the high it requires, even in the minor categories. But there are still some interesting markets: China for example. We have been working closely with Davide De Gobbi for several years now. He has purchased a number of our cars in order to start up a Formula Abarth competition out there. This year saw a significant transformation with the introduction of the new Volkswagen engine, thanks to Davide's ongoing collaboration with the German manufacturer. Volkswagen was enthusiastic about the product and for us it was fascinating to work side by side with them, in Germany and in China, sharing our ideas about how to adapt the engine to the existing chassis and to modify the bodywork and managing to get everything ready on time for the first race, without any hiccups. The South American market is very encouraging, thanks to the backing Formula 1 drivers. There's also a new initiative involving our cars in Taiwan where one track is already complete and another is under construction. Then there's the ongoing collaboration with Toyota in New Zealand; they've been using our cars for ten years and negotiations are currently underway for a new car. The drivers' school in Japan uses Tatuus cars, and last year saw the inauguration of a new mini-series in Russia; we're starting to see the emergence of some very talented drivers from the East. All these markets offer very good potential for growth».
Given the current economic situation which affects every sector to one degree or another, the best possible business plan is to build for the future. The real challenge is to look forward. «I'd like to be able to pass on what we've built to the next generation», concludes De Bellis. «Turnover is fundamental. We've made our share of mistakes, but if you can marry the experience you've built up over the years with the enthusiasm of passionate, intelligent and mature younger people, then the future should hold no fears for you. I've got a wonderful family and other interests I can't always dedicate enough time to, I don't think I'll still be doing this when I'm 80 years old. But I'd like to think that someone else would be willing to take up the baton, with a little help from me when it's needed».

F.Master

Renault V6

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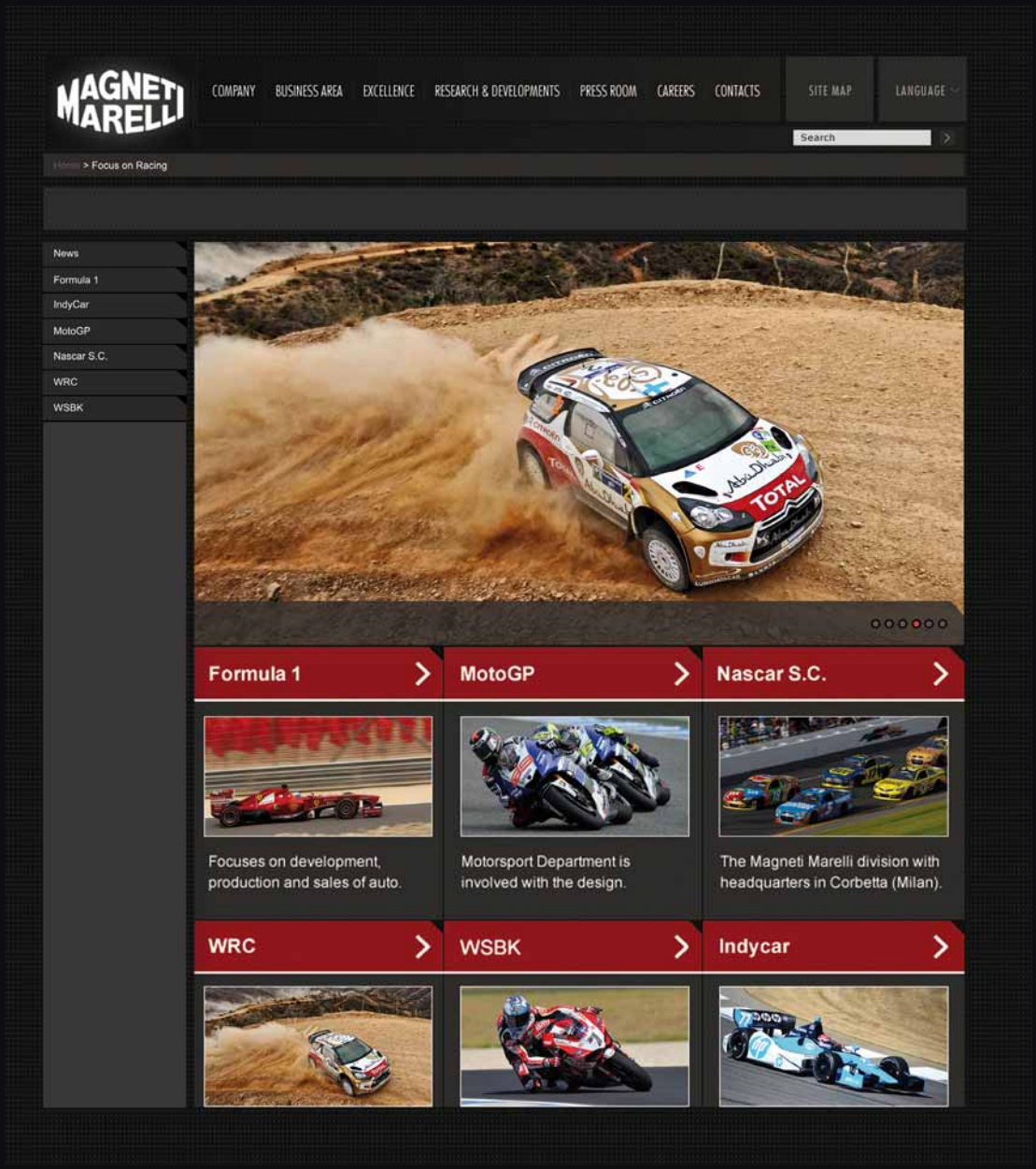


magnetimarelli.com/focus-on-racing
is an open window on the world of motorsport competitions: news, results, race classifications, statistics and history.

Tatuus in

150
Kits produced for the 2013 F.Renault 2.0 series

F.Renault 2.0
European Championship
Italy
UK
Swiss
France
Germany
Denmark
Netherland
North European Cup
West European Cup
Usa
Mexico

Formula Monza	15 cars
Formula Panda Monza	70 cars
Formula Konig	50 cars
Formula Marbella	25 cars
Formula Alfa Boxer	15 cars
Formula Renault 95/97	100 cars
Formula Ford 2000	(Usa) 15 cars
Formula Ford 1600	(EU) 10 cars

Formula Renault 2.0	850 cars
Formula Renault 1.6	130 cars
Formula Renault V6	30 cars

Formula Toyota	40 cars
Formula Challenge Japan	30 cars
Formula Master	50 cars
Formula Abarth	120 cars
Prototipo PY 012	15 cars

F. Toyota

the world

F.Renault 1.6
Belgium
Spain
Italy
Mexico
Usa

F.Master
Europe

Prototype PY 012
VdeV (Europe)

F.Abarth
Italy
Europe
Asia
Panamerican
championship

F.Challenge Japan
Japan

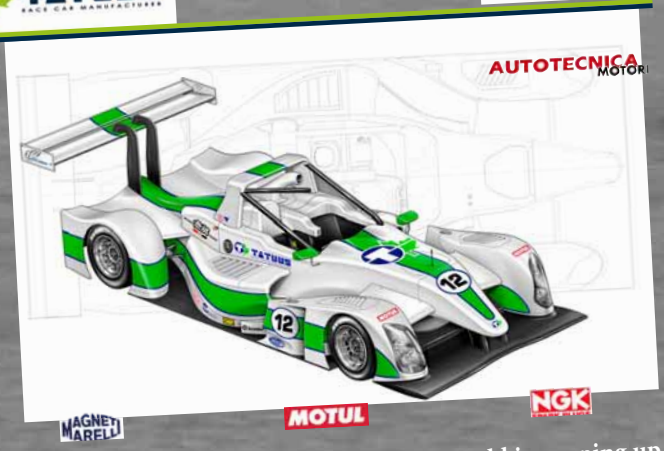
F.Renault V6
Europe
Asia

F.Toyota
New Zealand

THE INNOVATION

PY 012
The protoype for the future

Tatuus has moved into uncharted territory with the new two-seater car designed for the endurance racing sector. The objective was to produce a car that combines performance with low running costs, in a similar way to the single seater. And judging by the results the project was a success and has opened up new scope for development at the factory in Lombardy



The horizons are broadening, a new world is opening up. A new bet to win, a new market to conquer, a new way of expressing our enthusiasm for racing. Opening up new or rarely trodden paths is the secret to staying young, and for Tatuus, after thirty years of building successful single-seaters, the elixir of (re-discovered) youth goes by the name of PY 012. The CN2 class prototype is the project that has generated the most enthusiasm in the factory in Concorezzo. Starting with Engineers Luca Orlandi and Corrado Casiraghi, followed by the expert in fluid dynamics, Eugenio Bardoscia, the enthusiasm is felt just as keenly by the owners Artico Sandonà and Gianfranco De Bellis. «Yes, for us the prototype represents a whole new market», explains De Bellis. «It's a highly complex project that has seen us move into areas that are entirely new to us. But after the first full year of competition I think we can all say that we are satisfied by the response we've had from the market».


HONDA
Endurance Series
NGK
SPARK PLUGS
MUGEN
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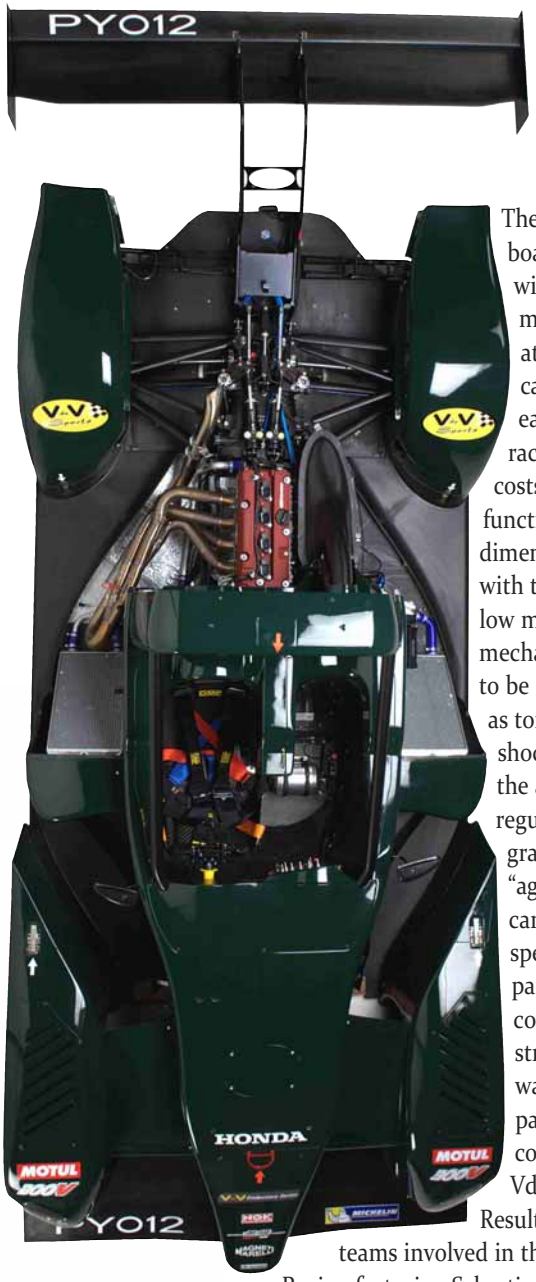

The PY012 was born on the drawing boards, on computers and in the wind tunnel in Concorezzo: six months of in-depth studies aimed at identifying the right project capable of combining performance, ease of use in both track and uphill racing conditions, and reduced costs. A winning but above all functional design, featuring reduced dimensions guaranteeing conformity with the FIA category regulations, and low maintenance bodywork. And mechanical solutions that are designed to be first and foremost practical: such as torsion bar suspensions with twin shock absorbers that do not require the addition of a third element to regulate the height above the ground, granting the driver increased "agility" and safety on the kerbs. The carbon cockpit features crash test specifications that exceed the parameters required by FIA and the collapsible structures are strategically distributed in such a way as to reduce the cost of spare parts. These features attracted considerable attention from the VdeV Endurance championship. Results: 15 PY 012 models built for the teams involved in the competition, including Tatuus Racing featuring Sebastian Merchan and the French driver Brandon Maisano who joined forces with the ecuadorean at the meeting in Dijon. During the most recent meeting in Aragon Tatuus achieved a second place in qualifying. «We were leading for much of the race too – continues De Bellis – and after the race at Motorland we realised that we were heading in the right direction. Now we can enjoy a satisfying climax to the season while looking forward to 2014. We're very pleased with our two drivers, we've had some highly profitable test sessions with them (the last one was in Misano at the end of July) and collected a lot of important data». During the 12 hours of Motorland the ranks were swelled by the arrival of the Ultimate team, which is based in Saint Gregoire, in France and managed by Marie-Alice Lahaye, the wife of Matthieu Lahaye, who shared the cockpit with his brother Jean-Baptiste and Francois Héreiu in Spain. Ultimate will be entering a second Tatuus car in 2014, a further acknowledgement of the growing reputation of the Italian designed prototype. The last meetings of the 2013 VdeV Championship are in Magny-Cours on 25-26-27 October, and in Estoril from 15th to 17th November. In Concorezzo it's no secret that great things are expectede both from the team and from the little gem known as PY 012.

THE DRIVER

"A car that helps you to grow"

The driver from Vicenza is one of the stars of the 2013 edition of Formula Renault Alps. Since his debut in single-seater racing Luca Ghiotto has always driven Tatuus cars: two years in Formula Abarth and now in the French constructor's competition organised by Domenico Porfiri's Fast Lane. We discover the merits of this single-seater together with Luca

Luca, how are you getting on with the Tatuus Formula Alps?
«Very well, it has a lot in common with the Abarth, which was the only single-seater I'd driven before, but it's a little more evolved. You can drive it like a go-kart, which means that you have to take it to the limit especially on the central section of the curves, in order to get the most out of it, because it hasn't got a big engine to help you out».

What do you think are the most interesting technical solutions?
«The chassis is a cross between a Formula 3 and a Formula Abarth. The times are close to the latter, but in many ways the driving style is similar to the F3 ».

Can this car help you to prepare for senior categories? If so, why?
«I think it provides good training for next stages, because aerodynamics is not too extreme, which means that it helps you learn how to drive. There's not much power, which can get you out of trouble sometimes, forcing you to drive very precisely and exploiting the aerodynamics and mechanics on the curves. In WSR and GP2, with their 500 CV engines, it's the power that helps you, but if you've already developed a good driving technique thanks to experience in categories like F.Renault Alps, it gives you a distinct advantage over those who haven't».

How does the car compare with the Formula Abarth you were driving last year?
«Aesthetically they're very similar and there are similarities between the driving styles too. The big difference concernes the tyres: Michelin has an highly competitive racing compound. The balance is similar too, which can be seen from how successful the package has been. The braking on the Renault is superior, similar to the Formula 3».

What are your aims for the championship? And for your career?
«I'm aiming for a second place in Alps, because I had few problems adapting from the Kumho tyres to the new ones at the start of the season and I lost a lot of points to Fuoco. Unfortunately I only really started hitting my stride at the halfway point otherwise I'd be in the mix for the title now, but I was already 50 points behind by the time we got to Imola. As far as my career is concerned, my dream is to make it into Formula 1, but I'd also like to become a professional driver in a program like DTM or Le Mans».

As a driver, what could the engineers at Tatuus do to stil, further improve the car?
«It's difficult to improve on a car that has to maintain certain standards! It's a single-seater that has been designed to help young drivers make the step up from karting to formula racing, and I don't think it needs modifying in any way. If the car performs too well then there would be no step up to Formula 3, so I would say that Tatuus has done a very good job».

Antonio Caruccio

"First of all enthusiasm"

The collaboration between Tatuus and Magneti Marelli is an example of a perfect understanding between two internationally renowned Italian companies. Matteo Mereghetti, a programmer with Magneti Marelli explains the secret of this success and reveals their latest projects

Matteo Mereghetti, a programmer with Magneti Marelli, closely collaborates with Tatuus and has provided the factory in Concorezzo with invaluable assistance during the development of the latest projects. Matteo's expertise lies in the rapidly evolving area of motorsports software applications, although things did not start out that way....

«I started working as a programmer 12 years ago in a completely different environment – explains Mereghetti – in fact I spent six years in meat traceability, before working as a programmer on handheld devices. I've always had a passion for motorsports, so when I heard that Magneti Marelli was looking for personnel I sent them my curriculum and after a couple of interviews I began a new adventure. I was happy at my old company, and it wasn't a question of money, it's just that I'm in love with motor racing».

What exactly does your job entail?

«At Magneti Marelli we're involved in the motor sports sector at various different levels: from Formula 1, through the Sport cars to MotoGP, Superbike and endurance; a bit of everything. Certain areas are concerned with software, while others are involved with hardware, I'm responsible for developing software in C language and the middle-range or customised software for our clients (from endurance to uphill racing, via SBK, supersport and rally-cross).

Together with Tatuus we have developed and produced a generic software that can be adapted to the needs of different championships (for example, by using a rotary switch it is possible to select various different mapping configurations (5) in order to adapt to differing maximum engine speed requirements or fuel types), while remaining within the regulations. In other words it is possible to select specific configurations for different categories, for example when switching from 8200 rpm for the VdeV to 9000 rpm for the Italian championship, without having to return to Tatuus for the necessary adjustments».

So, just like at Tatuus, the customer's needs are your top priority.

«Yes, the experience they have accumulated at Tatuus and which we share, teaches us that the most important thing is to keep our customers happy; provided that the teams are up to a suitable level, of course. That said, the use of electronics is nowadays practical universal in every category».

How did the collaboration with the factory in Concorezzo begin?

«Right from the start I was responsible for the Ftp mapping phase on the Abarth, from the initial shake-down with Giammaria in Vairano up until the presentation in Vallelunga. The second project, which I've been involved with in a support role right from the off, is what has come to be regarded as the prototype. In particular the engine control, the hydraulic gear-box, the basic set-up and the logger and dashboard configurations».

How do you go about sharing experience and information with your partners?

«We have a very open and collaborative relationship: and I have to say that this is all too rare in most industrial environments. We have an excellent relationship with Tatuus on a personnel level too, there's a continuous give and take and nothing is ever taken for granted, and that's possibly the aspect that I enjoy most about the job».

It must be very satisfying to know that you're contributing to the success of two prestigious Italian players in the world of motorsports...

«Certainly. Before I started working in motorsports I'd never had any experience of a

company like Tatuus, who have been building top quality products for many years. I'm sure the teams would agree with me when I say that they are capable of providing high performance at very "fair" maintenance costs».

What projects are you currently developing together with Tatuus?

«Recently we carried out testing on the new electronic gear-box for the Formula Abarth in Franciacorta recently. This project was the result of another top-level collaboration between Tatuus and Magneti Marelli Motorsport. The tests went well, we were forced to carry out one less run than originally intended, but the feedback from the drivers was very positive, including their evaluation of shift times. We started off using an oversized base with a range of torque and horsepower ratings designed for a GP2, but the experiment was successful and we believe that we will be able to use the experience and data we accumulated for Formula 4 and other projects».

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