

OUTSTANDING IN THEIR FIELD

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A. DUGAST has pioneered handmade tubular tyres for more than half a century, earning a cult following among world champions and Olympic winners along the way. *Rouleur* talks to Richard Nieuwhuis, the man driving its never-ending cycles of improvement

Step inside a research and development meeting within most cycling brands and you're likely to hear hackneyed clichés of 'reinventing the wheel' and 'thinking outside the box'. Countless hours of group-think later, the result is often a slightly tweaked product where you'd need to take a forensic look at the spec sheet to really spot the differences.

A. Dugast, which joined the Vittoria Group in May 2021, isn't like most cycling brands. A Netherlands-based manufacturer specialising in handmade tubular tyres, its product might seem something of a throwback in a world of mass-produced, tubeless-first rubber rings. But its collection of World Championship, World Cup and Olympic wins proves it's still at the cutting edge, punching well above its weight because of its desire to do things differently.

Richard Nieuwhuis, A. Dugast's owner and CEO, makes it clear that this constant search for improvement is more than a job – it's a passion.

"I go to a lot of crazy shows that have nothing to do with cycling," he says. "It's about not sourcing from your neighbour, but really looking for all materials coming from different uses, different areas."

A prime example: the tyres the company produced for Harrie Lavreysen when the Dutchman powered to two gold medals in the velodrome at the 2020 Summer Olympics. "The latex for the treads is 0.2 millimetres thick, so very thin, very elastic and very durable," explains

Nieuwhuis. "Which kind of industry do you go to? The fetish industry!" It's not Nieuwhuis's only foray into the adult industry. Although ultimately unsuccessful, he has also worked with condom manufacturers to try to improve on the brand's range of inner tubes. "They know thin, quality latex," he explains.

It all forms part of A. Dugast's colourful story, where perfection, regardless of the route taken to get there, has been prioritised above all else.

Unrequited love

A good idea or pioneering product is usually the basis of the foundation of a new company, but in A. Dugast's case, it was revenge. In the 1970s, Frenchman André Dugast was working for Dordogne – a manufacturer of cotton and silk tubular tyres that was based in the southwestern France department – when he fell in love with one of the founder's daughters. Unfortunately for Dugast (although fortunately for cycling), the love was unrequited. He decided to start his own, eponymous rival company out of frustration.

Dugast's tyres quickly acquired a cult following on the cyclocross circuit, with riders and mechanics from across Northern Europe seeking out the elusive tyre maker. One of those was Richard Nieuwhuis.

A bike shop mechanic-turned-carbon specialist for the French frame, fork and pedal manufacturer Time, Nieuwhuis would spend his week perfecting the production



of carbon fibre alongside Time's founder Roland Cattin at its factory in Grenoble in the French Alps before returning to the Netherlands at the weekend to work on the spanners for the national cyclocross team. On his way home, he'd always be sure to stop by and see Dugast to drop off tubs to be repaired and pick up his latest order.

"André didn't trust too many people," says Nieuwhuis. "You had to see him at the race to pay him cash to get the tyres, or you had to come to his town to collect your products. But you were never able to get into his small workshop."

Customers would have to collect the goods at Dugast's local post office. "By the post office, you can always collect your money by card and you can pay him cash. In this way, he always had his money."

Over time, however, the Frenchman started to soften towards Nieuwhuis. The Dutchman's requests for certain improvements and changes to the tyres showed a passion and understanding of the product. They would no longer meet at the post office. Instead, Nieuwhuis was invited to Dugast's home.

When Dugast decided to retire at the turn of the millennium, he knew who to turn to. Nieuwhuis recalls: "He said to me, 'You have to buy the company.' I had a great job, there was money involved and there were a lot of changes. He said, 'We will make it work.' And that's what we did."

Cross purposes

Twenty years later, Nieuwhuis still continues Dugast's legacy, albeit with a little more help. A webshop has replaced those shady drops at the post office. Today, A. Dugast employs 10 people, who make roughly 10,000 tyres a year (a 600th of competitor Continental's reported 6 million). Each is proudly handmade in its factory in Oldenzaal – a small, sleepy Dutch city 10 kilometres west of the German border and the birthplace of nineties and noughties sporting stars, cyclist Rudi Kemna and football player and current Manchester United manager Erik ten Hag.

While the company produces everything from hand-bike and track tyres, to old retro releases and car tyres, it is renowned for its cyclocross offering. Its seven-strong range is the preferred choice of Wout

van Aert, Marianne Vos and Lucinda Brand. In fact, if a rider is standing at the top of an elite race's podium, it's rare they're using anything else.

It's not a case of cleverly sponsoring the best in the field, however. A. Dugast tyres are famous for their ability to be ridden as low as 1 Bar (14.5 PSI) without increasing the risks of puncturing. At these pressures, the contact point between the tread and ground – and therefore grip – is increased.

"In terms of TPI [threads per inch – the quantity of threads that cross through a square inch of a single layer of the tyre's casing], the casing we produce is way higher than all our competitors," says Nieuwhuis. "You can ride at 1-1.1 Bar and still control it. Our competitor's products can't be ridden underneath 1.5-1.6 Bar."

While it's quite hard to quantify when looked at through a road cycling lens – where even WorldTour riders will stick to roughly three different tyre models (time-trial, all-rounder and Classics) throughout a whole season – tyre choice can be the difference between winning and wallowing

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in the sludge during a cyclocross race. "Tyres are the only way you get grip in a muddy area," says Nieuwhuis. It's not just a choice of tread either. Riders will vary tyre pressure, compounds and width depending on the course and conditions. "If you are going to the European Championships in Namur, you want to have a Rhino in a 33," he explains. "At a race like GP Adrie van der Poel in Hoogerheide, you're going to put the Rhino in a 30 on – the reason is that the underground is rock hard and it's super slippery on the top, so you want to cut into the mud."

Even if riders are at the same course, on the same team and using the same bike – such as Jumbo-Visma's Wout van

Aert and Marianne Vos – there are even more factors that will determine the tyres they use. "The reason is the style of the rider – the amount of watts or horsepower that they have is a different world," he explains. "The compound makes a difference, sometimes the material of the casing. Also, the ladies are riding roughly two hours before the men, which means by the men's race, the course is beaten up. All these things together make the final choice. It can be the difference in terms of 0.1 Bar extra, or choosing a 33 instead of a 32 or 30."

Feedback loop

To keep his riders at the top of the sport, Nieuwhuis constantly looking at ways to



improve A. Dugast's offering. Fortunately, he's got an army of pro-rider guinea pigs he can call on for feedback. "I spend a lot of time at races talking to riders. Everything they say, I throw it in my backpack. If you want to create a new tyre, you basically check what each rider – be it Quinten Hermans, Kevin Khun, Fem van Empele or Puck Pieterse – has told you. Of course, you like to make them all happy, but before you can come to the decision of creating something new, you need to have the complete picture."

He will use this real-world insight to determine how the products can be taken to the next level. If it's beyond the limits of the current range of tyres, he won't think twice about creating a new one.

"Even if it's niche, I don't care," he says. "The Diavolo, for example, was something requested by Sven Nys." The Cannibal from Baal was preparing for the 2010 World Championships in Tábor, Czech Republic, and was convinced he would be competing in icy conditions. He went to Nieuwhuis to see what he could do. "Compound alone wouldn't cut it. We had to do something that could break into the underground, so we had to think about something super sharp." An out-and-out spiked tyre like those used in motorsports such as rally was banned by the UCI. Nieuwhuis bent the rules, getting creative with the definition of a 'spike'.

"A spike is always described as a sharp piece mounted on a

ground plate. This tyre had floating metal pieces in the knobs. I don't think it's a spike," he says with a smile. To create the tyre, he had to look outside his usual suppliers, too. "They said to me, 'You have to buy a minimum 25 kilogrammes [of the metal pieces]. I didn't know how much 25kg was but it was a little over 2.5 million nails. I still have them," he laughs.

While the Diavolo has remained a truly specialist creation, not all 'niches' have remained as rarities in its range. "What is a niche today can be huge for tomorrow. When I started the Rhino tyre, I was expecting to sell 300 pieces a year." The mud-focused model has high knobs for grip while its tread pattern has superior mud-shedding capabilities. It's now one of the brand's biggest sellers, and between four and five thousand are produced every year.

Nieuwhuis adds that the changing climate and the desire of race organisers to build more challenging courses drive his need to constantly update and refresh the range, while changes in bike technology – the shift from aluminium and steel-framed bikes to carbon fibre, and the replacement of cantilever with disc brakes – have also had a knock-on effect.

"With the disc brake, carbon wheels and frames coming into the industry, the riding style is much more aggressive. You have much better control over your bike and your handlebar is the one that is in control of cornering, which means the force on



the front wheel is much higher than in the past. Also, there's a lot less flex in wheel frame construction [because of thru axles], so people can start pedalling and putting the tyre under force in a corner. The design of the treads, compounds and casing is therefore influenced."

A team effort to build a world-beating tyre

The relatively small size of A. Dugast means that when changes do need to be made, it is able to adapt – and at speed. The manufacturing of the tyre itself is undertaken by a team of five people. Each has been trained for roughly 18 months by Nieuwhuis himself to be able to complete all of the different processes involved with hand-making a tyre, and can slot in at any section of the production line.

There are 15 different stages – starting with the looming process to create the casing, and finishing with the application of a layer of shellac on the sidewalls to prevent dust and water breaking the tubular's seal. While one person could do the whole job in one-and-a-half hours, including a bit of downtime, the production line means that roughly 40-45 minutes of manpower go into each tyre.

The result is that a new tyre can take as little as two days from order to completion, meaning that riders can provide insight one weekend and be racing on an upgraded set the next. In a world of marginal gains, it's evident why A. Dugast's unconventional approach works. ●

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