Spies Hecker coats fabulous carbon fibre sculptures

Mixing artistic skill with a heavy dose of engineering expertise, artist Alastair Gibson draws on his 15 years of experience in Formula OneTM to create his carbon fibre sculptures, each impeccably finished with Spies Hecker.

'carbon king': This engineered sculpture takes an engineering look at the king of beasts. Dimensions: L 390 mm W 255 mm H 350 mm height on stand. Weight: 8.5 kg

At first glance, fish and Formula OneTM race cars don't have much in common. However, in the eyes of Alastair Gibson, a pioneering carbon fibre sculptor from South Africa, based in Brackley, Northamptonshire, England, they share quite a few similarities.

“Formula OneTM cars and sharks have very clear centre lines, they are both beautifully symmetrical, and of course race cars are supremely aerodynamic and sharks are completely hydrodynamic – basically aerodynamic, but in water,” says Gibson, explaining why he has based so many of his sculptures on fish and aquatic life.

Motorsport in the blood
While Gibson has established himself at the cutting-edge of carbon fibre sculpture in the eight years since becoming a full-time artist, his career is steeped in motorsport. After seven years in lower racing formulas, he spent 15 years in Formula OneTM, first as lead mechanic for the Benetton F1 Team, and then as race team chief mechanic for the BAR and Honda Grand Prix teams. But artistic creativity was in his blood.

“I had so many ideas. I started fiddling around with discarded carbon fibre fragments, and bits and pieces from the cars, because that’s what I had to hand. I realised I could make some beautiful things, but I wasn't sure anyone would be interested in buying them,” says Gibson.

Art based in engineering
Having discovered his true passion in the downtime before and after races, and in the off-season, Gibson made the decision to become a full-time carbon fibre artist in 2008.

The process of creating the sculptures is lengthy. Gibson first hand-carves a 1:1 scale model in balsa wood, then scans it and uses CAD software to decide on the placement of the details such as eyes, gills or fins. Next come carbon fibre moulds, the number of which depends on the sculpture. Then, the very skilled and time-consuming process of laminating - carefully putting the thin carbon fibre sheets into the moulds - takes place.

Gibson explains, “this is such a tricky stage in the process because, with most of my sculptures, the weave of the carbon fibre can be seen through the Spies Hecker clear coat, so you have to get it to lay correctly in the mould, and you have to make sure there is nothing between the carbon fibre and the mould. Even a single hair can completely ruin the sculpture at this stage. It’s not like working in bronze where I might be able to melt it down and start again; with carbon fibre, if it goes wrong, it just goes in the bin, which is quite costly.”

The carbon fibre-lined moulds undergo a pressurised process called “de-bulking” and are then put in an autoclave to create a final, perfect section of the sculpture. Some sculptures consist of only two halves, others – like the 3m aero manta – have nine components in total.

The right artistic coating
“All the time that goes into the pieces up to this point – and that can be as much as four weeks – would be wasted if we couldn't get a gorgeous finish to show off the weave of the carbon fibre,” says Gibson.

Thanks to Gibson’s long career in Formula OneTM, he knows Andrew Moody, Head of Paint and Graphics at MERCEDES AMG PETRONAS, and his team. Once the sculptures are assembled, Gibson transports them to the MERCEDES AMG PETRONAS paint shop in Brackely, where they are coated in Spies Hecker paint, like the MERCEDES AMG PETRONAS race cars and team trucks.

Moody says, “We use Permahyd® Hi-TEC Base Coat 480 on the sculptures if colour is required, and Permasolid® HS Optimum Plus Clear Coat 8650, which gives us a great glossy shine and makes the sculptures look their best. It’s interesting for my team to paint something so completely different. They enjoy the challenge, even though it can be time-consuming. The 1m-wide j manta took about 25 hours to paint, and one of the racing piranhas took about 10 hours from start to finish.”

Discussions between Gibson and Moody on colour and effect often take place during the initial concept phase, to ensure Gibson’s ideas can be realised. If Gibson wants Moody to match a specific colour, the team relies on the Spies Hecker ColorDialog spectrophotometer.

Smart coatings for carbon fibre
But carbon fibre sculptures are the exception rather than the rule for Spies Hecker and the company behind the brand, Axalta Coating Systems (NYSE: AXTA), a leading global

manufacturer of liquid and powder coatings. With automotive manufacturers trying to make vehicles lighter to reduce emissions and fuel consumption, they are replacing standard steel with composites such as carbon fibre. Axalta applies its 150 years of experience in coatings, in particular the technological behind its OEM coatings and refinish paints brands including Spies Hecker, to develop workable and successful coating systems for car manufacturers using carbon fibre and other light-weight substrates.

Artistic finishing touches
Joachim Hinz, Spies Hecker Brand Manager Europe, Middle East and Africa, says, “To see Spies Hecker being used on such creative and artistic pieces of art is wonderful. We know that our refinish paint provides a fantastic finish on passenger cars and commercial vehicles, but now we can also say that it’s good for a carbon fibre hammerhead shark and piranha! We are very honoured to be part of Alastair’s journey.”

The painted sculptures are sent back to Gibson’s studio where the rest of the details are added, from stainless steel fins, which are photo etched, to polished bismuth alloy for other parts – like the teeth on the carbon king sculpture.

But the most unique aspect of Gibson’s pieces is that they incorporate Formula OneTM parts, each of which has a production and part number that can be traced back to a specific car and race. These parts form the eyes of the racing piranha, the nose of the c-horse or the gills on the back of the mantas. Many pieces are displayed on a section of FIA legality perma-glass under-floor planks.

From the pit lane to Park Lane, and beyond
Gibson’s success has gone from strength to strength, with sculptures selling to collectors all over the world. He is exhibiting a small collection at the Dorchester Group’s 45 Park Lane Hotel in central London, which includes the large aero manta on the so-called Dorchester Island, until the end of July 2016.

Gibson says, “I take inspiration from so many things around me. I am utterly passionate about creating these sculptures, and ensuring the finishes are perfect, so I hope that comes through when people look them.”

For more information on Alastair Gibson and Carbon Art 45, visit carbonart45.com. For more information on Spies Hecker, visit www.spieshecker.com or contact the local sales representative.

About Spies Hecker
Spies Hecker, one of the global refinish coating brands from Axalta Coating Systems, develops optimum and practical paint system solutions that can make bodyshop work easier and more efficient. With more than 130 years of success behind it, Spies Hecker’s high-quality product systems, customised service and targeted training demonstrate its partnership with the refinish industry. Based in Cologne, Germany, it is one of the world’s leading vehicle refinish brands, and is available in over 76 countries worldwide.
Spies Hecker – simply closer!


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