

PowerSHAPE

Product Design with Devèze Design

Devèze Design is an engineering and graphical design agency with specialism in transport and industrial design, established in 2003 in St-Priest-en-Jarez, France. Devèze Design's founder, Alain Devèze, chose PowerSHAPE for creating models and maquettes for industrial products because PowerSHAPE allows them to present exact 3D views and photo-realistic images to their customers, as well as generating files for use by the Design Office or as rapid prototyping data.

What do a baby's bottle and an electric bicycle have in common? Answer: the innovation and realisation of an Alain Devèze Design. Alain Devèze has been involved in innovative design for many years, attending a world-class automobile design school in 1990. After gaining design competence and technical vision during the course, he started his career at Tram Design before moving to Salomon. In 2000 he started a small business followed by Devèze Design founded in 2003 with his wife, all whilst teaching at Valenciennes ISD (Institut Supérieur de Design). Accolades include being twice winners in the Lépine contest: in 2003 for a one-seater concept vehicle with four wheels set in a lozenge, and in 2005 with the Man-TX and Xtrium, as well as fifth prize for an anti-pinch hinge system in 2008. Following these successes, Alain Devèze has set up another business - Devios - dedicated purely to innovation.

A Career Path Marked by Creation and Innovation

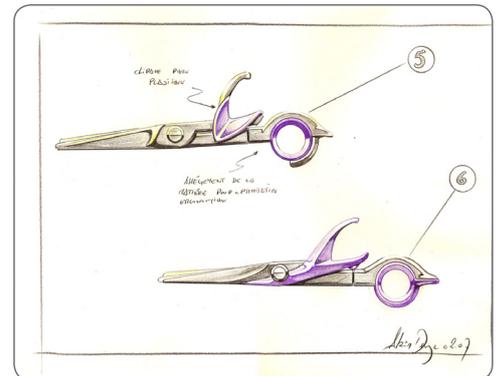
Since then, Alain Devèze has been enormously sought-after for his creative approach, both by his ex-employer Salomon, and other companies including Mavic, part of the Salomon Group. Specialist areas are the transport sector - automobile, vehicle parts, and other mobility-related products - and children's products such as Tigex. To manage these projects well requires a powerful and adaptable design tool that is able to give a complete and precise image of the product, both as aesthetic and photo-realistic impressions, with files that can be used by the CAD office.

"I start by drawing on a sheet with a black pencil, then add definition with coloured pencils. It's a creative searching phase used to generate a "book of ideas". The next more detailed phase is produced with felt pens", says Alain Devèze. Only after that does he move onto sketching and modelling with CAD. Using different techniques during these phases is very important. "The customer can see his project evolving and becoming more refined", recounts the designer.

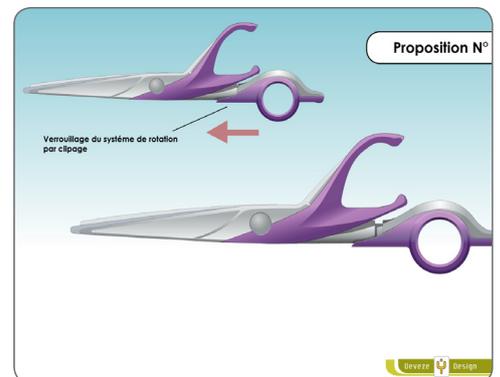
From the beginning Devèze Design's choice of software was key. "I first used Alias Studio v10 but I found that it was an ageing product and complicated to use, so I looked at different tools on the market", remembers Alain Devèze.

"In 2007 Fikret, my neighbour, who is a designer and works at Delcam, showed me PowerSHAPE, Delcam's design software. I was immediately taken with this tool so Delcam loaned me the software so I could evaluate it, and even before attending a training course, I could design models and publish reports. Without knowing the software, I was working as fast as I did with Alias". Devèze Design subsequently purchased a full software licence at the end of 2007.

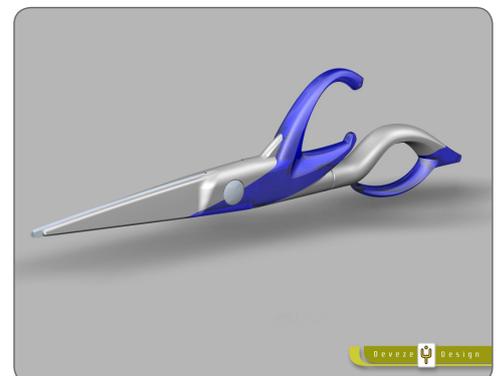
Ciseaux Sporfun Taberley tableware



Concept drawing



Refined 2D drawing in Illustrator



PowerSHAPE 3D model

The Choice of Delcam PowerSHAPE: Flexibility and Simplicity

One of the demands faced by the designer was to create a quick and stable product. PowerSHAPE allows Alain to easily design a new product or to modify a current product with improvements. "For example, I import a 3D IGES file supplied by the customer into PowerSHAPE which then allows me to include specific design requirements inside the software. Once the file is ready, I design my CAD drawings directly in 3D", says Alain Devèze. "Being able to use both solid and surface modelling in PowerSHAPE makes it very simple to achieve".

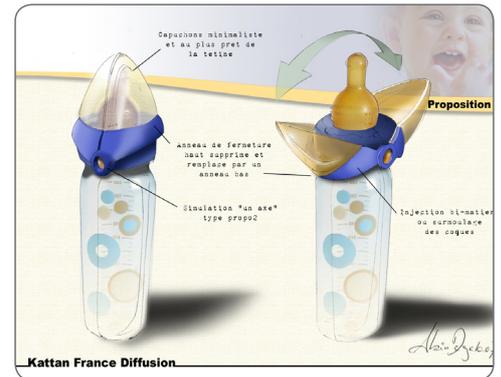
When it's a case of pure creation, the software allows the designer to render the design into photo-realistic images from surfaces very easily, so you can show beautiful images of the future product very quickly to the customer. "The surfacing is generated very well, giving us the time we need to model the details. Furthermore, with PowerSHAPE it is easy to evaluate the time needed for a project" adds Alain Devèze.

The result supplied to the customer can be given in different ways: when a designer asks for a 3D model or rapid prototype, "We put the files generated by PowerSHAPE into a rapid prototyping machine and the supplied result is good quality" says Alain Devèze. The precision of the 3D model is not just a question of aesthetics: "On the 3D file, we can see immediately where to put the split surface and PowerSHAPE highlights the constraints for each detail in the design."

"To aid understanding, we can move components, explode a system or display the part in different orientations. For example, the ring on the baby's bottle can be shown in the closed or open position. It is also possible to put the product image in a real environment by integrating the 3D model into a photograph. PowerSHAPE processes the focal management and placement of the parts so, for instance, Alain Devèze can display his hinge in a kitchen, in a bedroom environment, and so on.

Alain Devèze is still increasing his knowledge of PowerSHAPE to exploit all its features, especially the 3D rendering with shading, lighting and depth effects.

Biberon Kattan baby's bottle

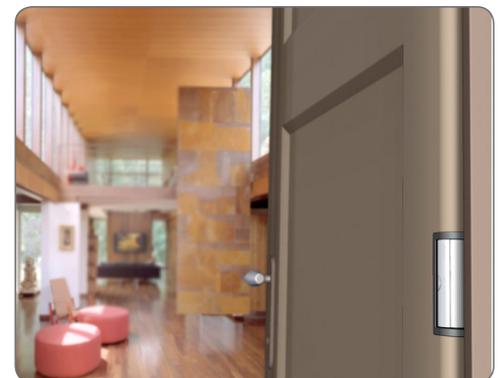


Proposal drawing in PowerSHAPE

Charnière Sathys furniture door hinge



3D modelling with PowerSHAPE



PowerSHAPE model in a real environment