



Adflo

A breath of fresh air for all welders

A new product area, lots of people involved and a very tight schedule. The circumstances for a successful project could have been better when Creator was commissioned to take part in the development of a new ventilation unit for Hörnell International's (now 3M's) legendary Speedglas welding helmet. But despite the tough conditions, the project was a success. Both for the customer, and for all welders getting a safer and healthier work environment. Adflo has now become a concept within the welding industry, and the 'fresh-air' project is an example of how much you can achieve with just the will and the skills.

The project:

Hörnell International started in 1981 around the idea of an auto-darkening welding faceshield - Speedglas. By using a technology involving fluid crystals, the helmet enables the user to have superior control during welding work. The company changed its name to 3M in March 2004, and the Speedglas product has a very strong market position in its product category.

For the helmet, Hörnell International needed to develop a new ventilation system which would substantially improve the work environment for Speedglas users by ensuring access to fresh air. After having first searched the market for appropriate high quality ventilation systems without success, Hörnell International decided to develop the product themselves.

“We combed the market for various ventilation systems but found nothing that met our requirements; which is why we decided to invest in the development of a completely new system,” explains Arne Linderstrand, Project Manager at 3M.

The requirements for the new ventilation systems were high, both from our customers and from our distributors. A lot of welding jobs are in inaccessible environments, which meant having to focus on a space-effective and lightweight system without protruding details, but with a good operational reliability and performance. Another requirement from a purely design angle was that the helmet and ventilation system could fit together. It should be obvious that the products were designed to be used together.

The solution:

The task of taking part in the development of the new ventilation system went to Creator and the project began straight away, as development time was short. The goal was to have a finished product ready for launch after only 21 months, a very tight schedule considering the complexity of the project in a new product area for Hörnell International, and involving several suppliers.

“We chose to work with Creator largely due to the fact that we had worked with them before and we felt sure of their ability to deliver, their construction skills in the field of mechanics and electronics, as well as concepts.”

Despite the tight schedule, Creator decided to spend a lot of time on the concept phase, and to get the various subcontractors involved early, something which Arne Linderstrand feels soon proved to be a wise decision.

“We basically had to quickly evaluate whether the design solutions we produced were achievable.” This required a close dialogue between all parties involved. This meant that the concept phase work was very significant and was therefore allowed enough time, despite the tight time schedule.

A number of parties cooperated in the project, both on the design as well as the construction front, among them three specially selected suppliers were employed to supply the product's strategic components: electric engines, fans, filters and batteries.



“As there were so many different technologies involved, a good cooperation between the suppliers was of utmost importance. By putting so much energy into the concept phase, the concepts were established and evaluated by the time we got to the construction phase, which made the construction work easier.”

The result:

Adflo sales began in September 2000 and 3M is very pleased with the results. The product is a sales success and is popular among its users. Adflo has received several prestigious design awards, among them the Excellent Swedish Design award.

“One success factor was our knowledge about the users’ situation, and the requests we received through field studies we carried out which were implemented in the design. The fact that there was some competitiveness later on in the project caused the suppliers to deliver a very high level of quality, which meant that the final results exceeded all expectation. Adflo has become a leader in its industry.”

Confirmation of the product’s breakthrough is, according to Arne Linderstrand, the additional products that have entered the market after the launch of Adflo.

“New products have emerged which are similar to the Adflo, and all these copies are confirmation of that our efforts were successful.”

