

## Enabling a globally-recognised brand to stand out in a new market sector with a unique solution

Elsap, an established supplier of specialist components for kitchen applications and industrial automation, had been briefed to design, develop and manufacture a custom meat probe. Elsap's customer, a globally recognised Italian kitchen appliance brand, needed a solution for a new range of industrial ovens that would see the brand enter this new market sector for the first time. With just six months to create a production-ready solution, Elsap approached Acal BFi with an initial design sketch.

### Uncompromising requirements with tight deadlines

The scale of the brief became clear at the initial engineering meeting; The solution had to be ergonomic, high quality, hard wearing, reliable and stylish, to maintain their customer's market leading reputation.

As one of the few tactile parts of the product, the meat probe needed to perform in several areas. It had to feel great in a user's hand, be comfortable to use over long periods, reliable, give accurate temperature results and robust enough to be handled hundreds of times a day, for many years.

There were just six months to deliver the final solution when Elsap's customer would launch its new line of products and any delays to the project would mean they would miss their opportunity to launch their new product at a key industry event.

Having worked with us previously, Elsap had total trust in our capability and expertise as their design partner for this project.



consult. design. integrate.

## Acal BFi's design experience solved a hidden design issue ahead of prototyping

Initially, the design drawing of the meat probe included a silicone ergonomic grip, a completely new idea for this market sector and unique to the Italian brand. However, when our engineers reviewed the design, they quickly identified the need for reinforcement within the sculpted silicon handle.

Without this reinforcement, the probe would have been too flexible to be used safely. The input at this crucial stage meant the project did not reach prototyping with a flawed design, causing considerable delay to the design process and the potential to miss the ultimate deadline.

The solution our engineers proposed was to embed a custom hollow metal spine that matched the contours and shape of the handle within the silicone. This would add the essential strength and rigidity to the handle as well as allow connecting wires to safely reach the tip of the probe.

## Direct access to a proven technology solution provider

Elsap had previously used glass temperature sensors from Acal BFi's sensor portfolio to create high performance durable, accurate, reliable solutions, and opted to integrate the same proven technology for this customer.

We work hand-in-hand with our partner suppliers to overcome any prototyping challenges and develop all the necessary tooling needed to create the prototype. Three months ahead of schedule, the prototype was submitted to Elsap for review with their customer, well before the deadline.



## Rapid prototyping and close collaboration were essential to meeting the deadline

During the prototype review, Elsap's customer made changes to the industrial oven's dimensions which in turn meant revising the prototype.

We immediately created new tooling and, in just four weeks, we were able to deliver the new, revised prototype.

This modified prototype was reviewed and accepted by Elsap's end customer, exactly matching their strict brief and requirements for an ergonomic, high quality, stylish solution. Approved for production, the final meat probe solution was completed and delivered well within the given deadline – enabling the Italian kitchen appliance brand to launch their product with its unique meat probe solution on time, allowing them to stand out against their competition at their industry event as planned.

## A unique solution re-affirmed the end customer as a market leader

By realising the end customer's wish for a unique solution, they were able to enter a new market sector confidently with a clear differentiator from the established competitors. This unique selling point not only helped the product stand out, but reaffirmed the brand's values for high quality, stylish products.

The final solution perfectly matched the end customer's brand values, an essential requirement as the meat probe was one of the most handled parts of the end product. For years to come, users of these industrial ovens will enjoy an enhanced user experience, which is more comfortable to use over long periods.

consult. design. integrate.