



Customer : Kwant Controls  
Product group : Industrial Plastics  
Market : Transport, aviation and maritime

## KWANT CONTROLS NEEDS A SOLUTION FOR RAPIDLY AGEING AND DIFFICULT TO PRODUCE PROTECTIVE COVER

ERIKS develops injection-moulded UV-resistant cover at low production cost



### CUSTOMER PROFILE

*Kwant Controls has designed and developed steering and helm position equipment as well as measuring and control systems to the shipping trade for over 60 years. It offers a wide range of standard instruments, attractive design and high-grade engineering.*

### CHALLENGE

Kwant Controls fits the control panels of all its instruments with a protective plastic cover. These covers are milled from clear polycarbonate, glued together and finished. The drawback of this material is that it is sensitive to UV radiation, so that the product ages rapidly.

Also, the production reject rate is high, so many production units never get sold. This is mostly due to deficiencies in the glued and finished edges. This issue makes the production process costly and hard to control.

### SOLUTION

Kwant approached ERIKS to redesign the cover, aiming to realize better durability and a more reliable production process. ERIKS proposed a solution that put an end to the hard to manage manual glueing of the parts, and recommended a cover of injection-moulded PMMA. The ASA injection-moulded frame parts are realised through ultrasonic welding, in combination with just a small number of glueing points. This production process is much easier to control, and also significantly reduces production losses.

These quality materials are highly UV-resistant, which increases longevity. Also, the cover is opal, which further improves UV-resistance. Another property of the PMMA-ASA combination is that both materials have very similar thermal and expansion coefficients, so they are highly suitable for glueing together.

### SAVINGS

- Cost savings
- Sustainability
- Increased production

### OTHER BENEFITS

- At average annual production numbers, the cost price of the new covers is 34% lower and the rejection rate is nil.
- All in all, a far better product at a lower price.