

### Service

Technical Moulding

### Project

Cygnus DIVE Instrument

### Industry

Commercial Products, Marine

### Client

Cygnus manufactures ultrasonic thickness gauges which are employed in almost every industrial application around the world.

### The Brief

Professional divers are employed to assess corrosion on subsea equipment like underwater pipework for oil rigs, bridges and well heads. After years of research Cygnus designed the world's first wrist-mounted thickness gauge.

Branded the Cygnus DIVE, Cygnus approached us to make a wrist-mounted product with a number of criteria:

- Be fully functional in 300m (984ft) of continuous immersion in sea water
- House specialist technology and electrical components
- Have a large 2.4" colour screen
- Be no more than 105 mm x 110 mm x 35 mm.



### The Stats

- 6 mould tools
- 9 separate components
- 40 days manufacture time
- 5 material variations

### Testimonial

"B.E.C has delivered a ground-breaking new product enabling us to win significant new business and I couldn't be more impressed. They have proven to be true experts in their field and are an example of British manufacturing at its best. Given the complexity of the product, several adaptations had to be made to the brief and the mould tool; the team adapted accordingly. They offered us technical design expertise throughout the process working closely with our engineer to innovate further. With all their facilities in-house we were able to keep a close eye on the costs and timings. They pushed themselves and demonstrated their complete commitment to the project."

David Crosthwaite-Eyre, Director, Cygnus Instruments

### The Solution

Taking all the key criteria into account, the biggest challenge at this stage was to factor in the tooling and manufacturing constraints whilst making sure the costs didn't escalate and halt the project in its tracks.

We added flexibility into the tooling design giving us room to re-engineer or modify the tool. Our concurrent engineering style allowed us to adapt easily and respond quickly to the challenges of this product saving

Cygnus valuable time and money.

The Cygnus DIVE is on the market, on time and within budget. The project stretched us all but this demonstrated the capabilities of everyone involved. Congratulations Cygnus on a truly innovative product!