

## CASE STUDY: UMBILICAL CABLES

---

Hydro Group's specialist subsidiary Hydrocable Systems designs and manufactures durable subsea cables for harsh environments around the world. Bespoke and 'off the shelf' umbilical cable designs are available, providing reliable and rugged transportation of power, chemicals, communications and more to subsea equipment.

### PROJECT

The client required reliable umbilical cables to supply power to moveable platforms located in their indoor wave test pool. This project incorporated power, signal data and a 6mm Overall Diameter (OD) pneumatic line within the umbilical.

### SOLUTION

After a full consultation with the customer, Hydrocable Systems designed, tested and engineered 1600m of CS 5975 specifically for this application. This design consists of 3x power cores (Class 6 insulated conductors, 35sq mm), 3x twisted screened pairs (24 awg), 2x twisted screened braided pairs (0.75sq mm), 3x insulated conductors (6.0sq mm) and 2x Nylon hoses (6.0mm overall diameter).

A waterblocking compound and tinned copper wire braid have also been added alongside a blue Polyurethane sheath to protect the cable from the elements.

### BENEFITS

The client's end requirements have been met, with exceptional functionality contained within a relatively compact OD of only 39.8 mm. As this cable is used in relatively warm water, PU sheathing has been used on account of its excellent resistance to solvents, fungus and UV rays.

With full electrical testing ahead of delivery to the customer, the cable is designed to be maintenance-free and last for at least 25 years.

Get in touch with us at [sales@hydrogroup.plc.uk](mailto:sales@hydrogroup.plc.uk) to learn more about our umbilical cable solutions or commission your bespoke design.

