

RS2 Cable De-burial Operations



Rotech Subsea were contracted to assist with cable de-burial operations on an offshore wind farm. Rotech provided the RS2 Controlled Flow Excavator (CFE) equipment spread to carry out cable de-burial and Joint de-burial ops.

Rotech were to carry out approx. 650m of cable de-burial, which included x2 Joint areas and x4 cut points. Once the cable and joints had been repaired Rotech were to Re bury the cable and joints to 1.5 – 2m DOL.

Rotech was not required to do the cut and recovery operations.

Rotech's Cutter/Grab tool had been offered during initial project discussions but the client decided to do this part of the scope.

Project Information:

Water Depth	-	20– 30m
Scope	-	Cable/joint de-burial and Re-burial
Soils	-	Heavy/dense sand

The RS2 was launched on the port side using the vessel crane using forward and aft tugger winches to control the orientation of the RS2 tool. The RS2 remained suspended above the seabed / cable to complete de-burial and burial operations. The vessel then then moved along the areas of the cable route that required de-burial.

Trench depth was monitored real time using a sonar imager mounted to the CFE tool to confirm when the cable / joint had been exposed.

Rotech as per client instructions de-buried the full 650m cable route first, the RS2 completed this task in a single pass. Backfill was very fast in the field so Rotech were required to go back and de-bury the cable at the x4 client specified cut points. This was to allow the divers to sling the cable at these points to allow them to complete cutting operations.

It was noted from client crew on the vessel that operations would be been much simpler and much time would have been saved if the Rotech Grab cutter system (RSGC) was utilised on this scope.

The RS2 CFE tool has a maximum outlet pressure of 60kPa and a max jet flow of 4000L/s. The soils in the area were heavy/dense sands but this was not a problem for the RS2. The de-burial was completed in 1 pass with multiple other passes completed on specific cut locations. The final burial run was completed with 1 pass and two small remedial sections. Vessel speed ranged from 1 to 2 m/min. and cable depth 1.5m to 2m.

Rotech Crew and the vessel deck crew worked very well together with good communication which lead to very efficient tool launch and recovery operations and overall project success. The RS2 performed as expected and achieved the excavation specifications required by the client.