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Manipulator Arm

CSIP, a UK based subsidiary of ECA has developed a five-function underwater manipulator arm that work in conjunction with remote marine vehicles. For many years, the company has supplied its parent company with electric, hydraulic or water powered manipulators for small object retrieval and articulation. These latest designs are based on existing proven technology but incorporate various improvements.



5 function manipulator arm

The five-function manipulator arm benefits from being lighter in weight than existing designs. It is fitted with larger bore arms and has an integral centreline extender. It has been designed for high power small electric ROVs that require powerful yet compact manipulator systems. All of the manipulators are produced from either aluminium or titanium and expect to have lifespans of over 25 years.

In addition to the five function manipulators is the low cost pan and tilt unit that features a fully enclosed drive system, capable of oil or hydraulic operation. Constant rotation speed is given on both axis of 180 tilt and 360 pan, allowing for full rearward vision. Position feedback is an initial or retrofit option and uses standard rotary potentiometers. All hose runs enter a single point within the electrics, allowing simple integration into a camera whip.

CSIP has the ability to design and manufacture machines that are specific to the needs of its clients, helped by the basic design and modular construction. It is possible to produce one-off systems configured to suit requirements whilst keeping costs down.