

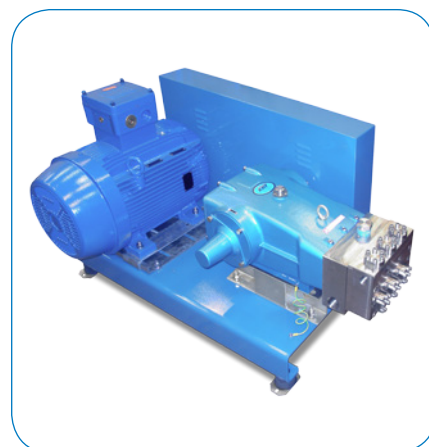
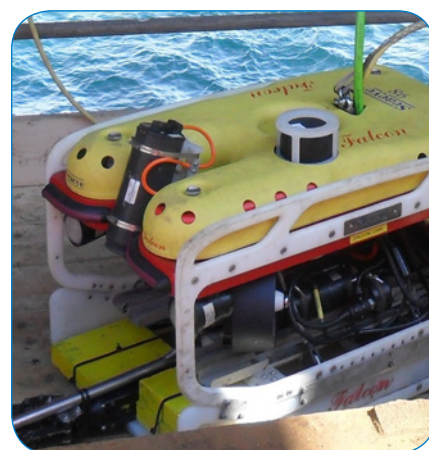
## Underwater Clean Up With Cat Pumps

There can be few more challenging cleaning processes, nor ones that demand ingenious methods, than that of remote cleaning marine growth from subsea structures such as the legs of offshore platforms. For several years Aberdeen-based HPR UK has provided a one stop shop for ROV's (Remote Operated Vehicles) and ancillary equipment, experienced pilots and survey engineers to carry out inspection projects where the use of divers could be time and safety prohibitive.

Cleaning or blasting marine growth from structures involves the use of high-pressure water delivered to the point of application through specially designed lances. These create cavitation in the water flow, with the bubbles resulting from this action exploding onto the marine growth. To be wholly effective, the systems require pumps capable of providing the continuous flow of high-pressure water from the platform. A pump type that is best suited for this is the high-pressure positive displacement triplex plunger pump.

Due to their extremely high specification of design and manufacture, standard bareshaft Cat Pumps products require very few modifications to make them suitable for use in ATEX areas. Generally, it is only necessary to minimise the risk of static electricity and to strengthen a few external parts to protect against accidental impact damage. Fundamentally, the pumps never get hot enough in normal use to ignite most flammable vapours.

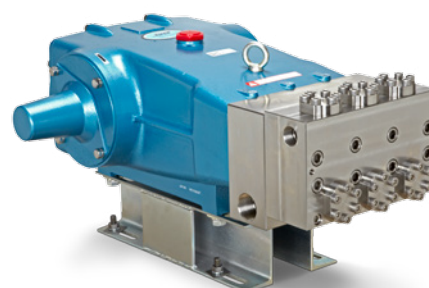
"Using seawater being taken from the platform's fire water ring main, our ROVs typically work down to depths of 50 m, but we can provide up to 200 m of half-inch hose for the larger systems," says HPR UK director Dave Gillies. "The ROVs can be in the water for anything between eight and ten hours cleaning large areas of hulls and intricate areas between risers and conductors. This level of duty requires pumps that can maintain both the required pressure and a constant flow over the period of use, which is why the high pressure triplex plunger pump is specified. For this recent contract, we urgently needed an ATEX pump and we knew that Cat Pumps was the only company that could supply a skid-mounted ATEX approved motor and pump in the time available."



### Application Specifications

#### Underwater Cleaning

Cat Pumps Model	6821.ATEX1E
Pressure	70 bar
Flow	200 lpm
Fluid	Sea water
Temperature	+1 to 20° C
Drive	30 Kw, 4 pole electric motor, belt and pulley



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