



# Submarine Abovewater Sensor Radomes

Total environmental protection for submarine abovewater sensors without degrading the performance of the individual sensors. The radomes must be able to withstand the operating profile of the host platform.

The photograph opposite shows three different types of radome designed and produced by P.E. Composites Ltd. They have all been manufactured using a woven fabric reinforcement and a proprietary resin system.

The radomes have a solar heat reflecting paint system for exterior finish and a double 'o'ring configuration to achieve interfacing with the appropriate submarine mast. All radome designs are fully tested and qualified to meet the operating profile of in-service and future submarine platforms.

The picture below shows a composite radome, manufactured in three parts, assembled to the underside of the pressure test tank lid having successfully completed pressure testing.



The three parts of the radome assembly are the radome (top), cylinder (middle) and basing (bottom).

The radome and basing are constructed using composite materials as described opposite, however the cylinder is manufactured in a syntactic foam matrix. These three components are then bonded together using an appropriate bonding resin system.



## Technical Specification

### MATERIALS

|               |                    |
|---------------|--------------------|
| Reinforcement | Woven fabric       |
| Resin System  | function dependant |

All materials resistant to salt corrosion and in-service fluids and contaminants.

|                         |                |
|-------------------------|----------------|
| Weight                  | various        |
| Dimensions              | various        |
| Pressure (Hydrostatic)  | 70bar          |
| Operational Temperature | -30°C to +60°C |
| Storage Temperature     | -40°C to +70°C |

