



## RADref-s2b

### Radar reflector for coastal sailboats

RADref-s2 is our most popular model for coastal sailboats. It offers a compact lightweight design by using 40 pieces of aluminium arranged at  $90^{\circ}$  and staggered at  $45^{\circ}$  which provides a radar cross section of  $2 \text{ m}^2$ .

The reflector is made of ABS- and PVC plastics and marine grade aluminium. Due to the rugged design and the materials used, this reflector is in top quality and has less chance of chafing to the sails and rigging compared to similar products.

In order to achieve the best performance, the radar reflector should be mounted in the rigging away from the mast in a vertical position at least 4 meters/13 ft. above the deck. In order to not block the radar signal, it is important to avoid mounting the reflector in the shadow of the sails or other equipment on board e.g. antennas. We recommend using durable lashing materials when attaching the reflector to the rigging.

For larger sailboats we recommend using two reflectors to ensure full visibility.

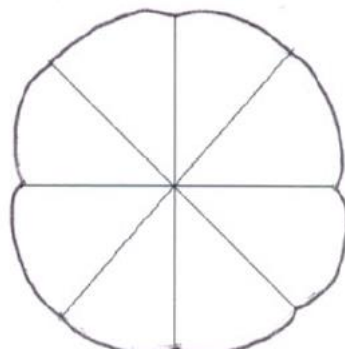


#### Mechanical Specification:

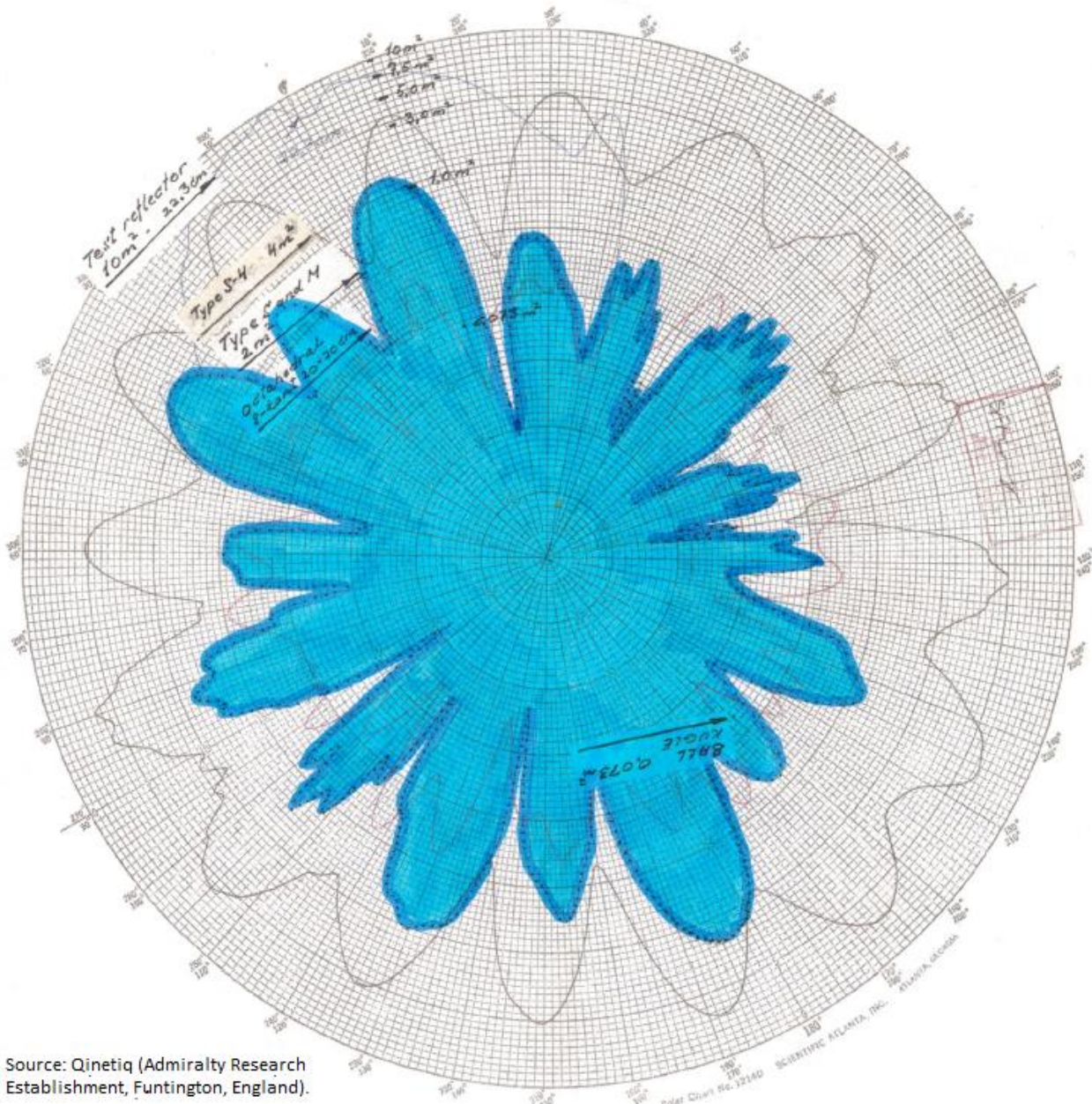
<b>Material</b>	Aluminium, ABS- and PVC plastics
<b>Dimensions</b>	$\varnothing 50\text{-}\varnothing 570\text{mm}$
<b>Height (m/ft)</b>	0.55/1.80
<b>Weight</b>	0.38kg (0.84 lbs)
<b>Mounting method</b>	In the rigging
<b>Radar cross section</b>	$2 \text{ m}^2$

#### Principles of the AC Marine radar reflector construction

The AC Marine radar reflector is constructed as a multi reflector build by many dihedral reflectors. Radar reflector S2 and p2 reflect in eight different directions. This construction ensures the most effective reflection of electromagnetic radar signals which is due to the many angles covered as well as the compact size of the reflector.



The above illustrates the radar reflector's 8 bigger peeks which enable full reflections in 8 different directions and  $360^{\circ}$  full coverage.



Source: Qinetiq (Admiralty Research Establishment, Funtington, England).

The AC Marine radar reflectors have been tested in terms of radar cross section and the 360° full coverage by the Admiralty Research Establishment in England, today known as a part of the British company, Qinetiq. As the above diagram shows, the radar reflector has 16 peaks, whereof 8 of these are bigger peaks which ensure full reflection in these 8 directions. The reflector gives one peak for every 22.5°, which ensures 360° full coverage. Furthermore, the diagram illustrates that the AC Marine radar reflector S2 and P2 have a radar cross section of 2m<sup>2</sup>