

Perforated Aluminium Reflector Antennas

Antenna shown is a 1.8m S band
4-piece CP antenna.



Elite has recently developed a new manufacturing technique that allows the creation of spun reflectors and antennas using perforated material.

This technique was developed in response to customer demand for a lighter, but exceptionally robust antenna with reduced wind loading which is especially useful in particularly harsh, windswept environments.

Our initial tests have indicated a reduction in windloading of approx. 31%, and a reduction of weight of approx. 39% compared to a standard antenna.

Advantages

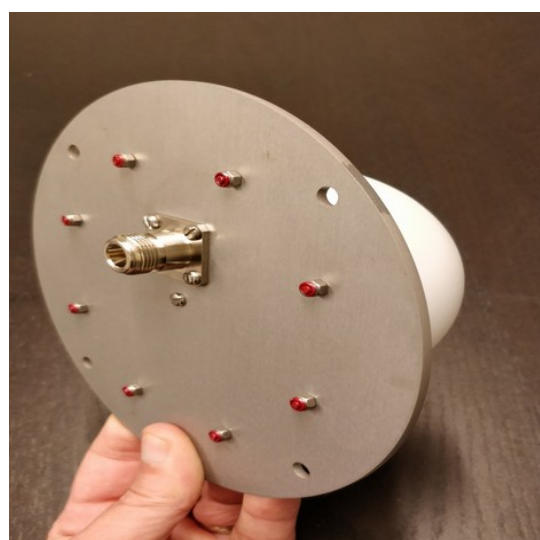
- Reduced wind loading
- Reduced weight, reducing transportation costs
- Rapid deployment
- May be manufactured in segments and easily assembled on site.

Frequency Range

The antenna does not lose performance if the hole diameter is less than 1/16th of a wavelength. A perforated reflector with 6mm diameter holes will therefore work to a wavelength of 96mm i.e. frequency of 3.1 GHz. 3mm holes can be used which will be good to 6 GHz ie C Band Tx.



Antenna in 4 segments



S Band CP Feed

Elite Antennas designs and manufactures a wide range of high performance satcom antennas, meteorological antennas and waveguide systems for high end customers including defence agencies, commercial broadcast networks, systems integrators and research agencies.

Contact us today to discuss your company's requirements.



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