

FLI structures

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Radar Towers & Monopoles



FLI Structures provides radar towers and monopoles to both the Military and Civil Aviation markets, installing them in some of the busiest airports across the globe. FLI's towers and monopoles remain in operation after many years in extreme climates from the Arctic Circle to the equator.

Radar Towers

The deflection and torsional rotation limits for these structures are particularly tight and the radar unit wind loading is high. Hence, the frame of the equipment cabin below the radar pedestal, acts as a major structural element, transferring the radar loads to the tower. The tower itself is a relatively stiff structure and is usually fitted with an internal staircase for maintenance. Towers can be supplied galvanised or painted ICAO colours. In higher windspeed areas a Radome is often required to protect the antenna and in that scenario, circular decked out platforms are used.



Radomes

Radomes are used to protect antenna surfaces from the weather and to screen equipment from view. They add a significant wind loading to the structure and come with their own requirements for installation and maintenance.

FLI have experience in both defence and civil markets, supplying and installing towers carrying radomes into some of the worlds most remote sites that experience sustained extreme weather loadings.



Terma Radar



FLI supplies towers to support Terma Surface Movement Radar System used at many major airports, as well as for Terma Mitigation Radar, which are used to counter the disruption traffic control radar experiences in the vicinity of large wind farms. For this type of radar, a slim tower with a ladder and fall arrest system is often used, although FLI can also supply larger towers including a more traditional staircase for easier access. Various foundation systems are available including traditional concrete or screw piles or micropiles for more challenging ground conditions.

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Congested Sites

FLI's team of engineers can design both towers and their foundations, with associated manufacturing facilities and installation crews, all operating under one roof. This enables efficient development and deployment of high quality, but practical solutions for installation at challenging sites.

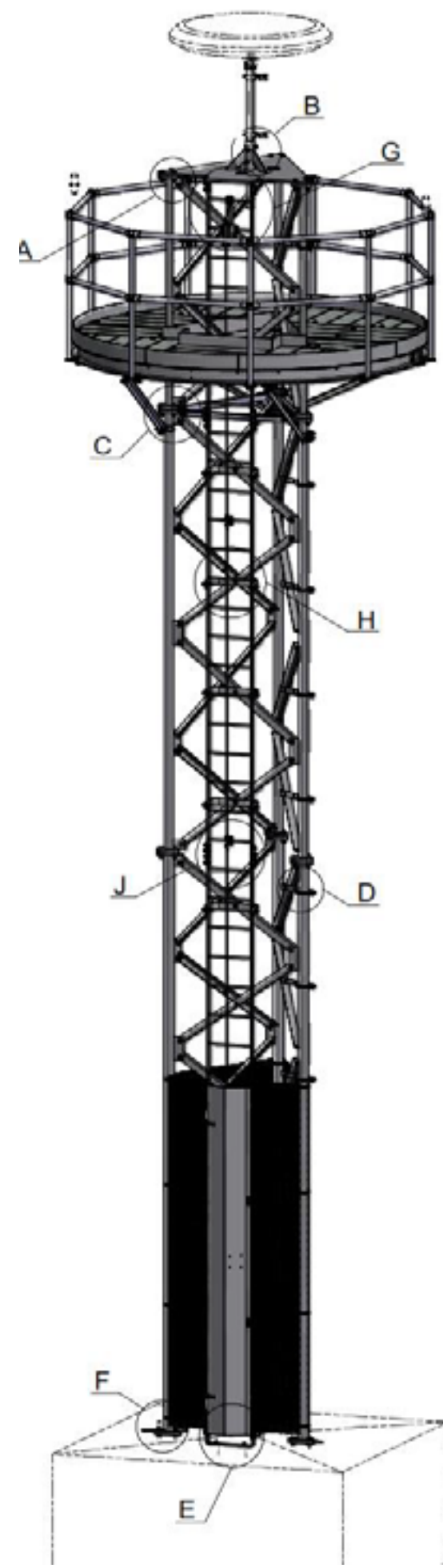


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Tacan Radar

The FLI SLP4 tower is a slim parallel tower with a ladder and Latchway fall arrest.

This example was used for a TACAN antenna, with a platform for safer access for maintenance and future upgrades.



Radar Monopoles

A monopole solution was introduced for supporting Surface Movement Radar at airports and wind farm mitigation systems. Monopoles are sometimes preferred by the airports as they are less visually intrusive and require a smaller demise within busy airport sites. Monopoles can be supplied galvanised or painted ICAO colours.



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Installation Teams



FLI Structures has complete in-house capabilities to install any steel structure, from rooftop mounted radar to 300 metre masts. FLI towers and masts have been installed by FLI crews around the world from the Falklands to Norway. The cost and risk benefits to customers from FLI offering a full turnkey solution are significant.

