



TERMA ANTI-ICING ANTENNA

COLD WEATHER CHALLENGES

The Ice Storm phenomenon such as dense fog, high humidity and temperatures cycling around the freezing point all contribute to a possible build-up of ice along the outer shell of the antenna.

SECURITY RISK

Ice on the antenna is not only an issue related to the Performance of the equipment, but is also a Safety risk, as the ice build-up can dislodge from the antenna with the risk of personal injury or surrounding equipment being damaged.

NEW OR UPGRADE

The new Anti-Icing Antenna may be delivered with new Terma systems or may be purchased as a replacement antenna for the existing SCANTER Radar System.



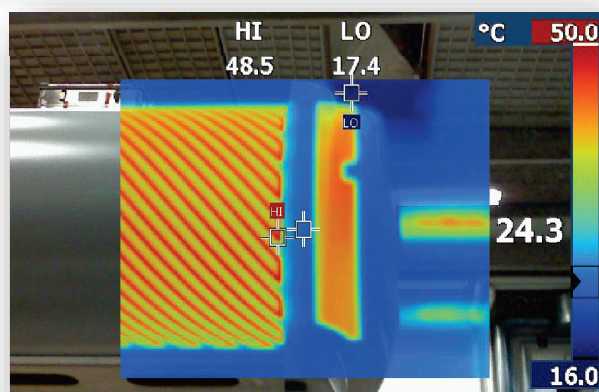
The challenge faced during cold weather

STATUS & BITE

Activation control of the Antenna Anti-Icing Antenna is automatic and based on temperature measurement. Output from the Anti-Icing Antenna contains heater status as well as BITE information.

STAND-ALONE SYSTEM

The Anti-Icing antenna is a stand-alone system, independent of the Surface Movement Radar manufacturer.



Thermal picture from the initial test of the anti-icing feature



TECHNICAL

The Anti-Icing Antenna is designed as an electrical heating system with heating elements attached directly to the inner side of the antenna.

The front and back of the antenna are both heated in the full length of the antenna and are divided into a number of heating elements.

Each of the heating elements connects to a heater controller located in an external box mounted on the side of the antenna pedestal, with an external temperature sensor.

Measurements of the ambient air temperature and antenna surface temperature ensures that power to the heater elements automatically switches on, preventing the antenna surface temperature from dropping below the freezing point.

Each heating zone is individually controlled to ensure high performance, efficiency, and protection against overheating.

SPECIFICATIONS

Power Consumption

Mains input	1x230 or 3x230 VAC
Nominal power	Up to 7.2kW
Consumption	31.3A

Operational Environmental Requirements

Adj. Heater ON temp. range	-40 °C to 15 °C (above this temperature the heater will be OFF)
Anti-icing wind speed	Up to 41 m/s @ 60 RPM.

