

## GENERIC SPECIFICATION

### Fence System

The system shall conform to BSEN 60335-2-76, and shall comprise, but not be limited to, an energiser producing high voltage pulses at regular intervals of approx. 1.2 seconds feeding into a wire fence, controlled by a unit which will detect an abnormality in the pulse pattern and trigger an alarm. The voltage of the pulses shall be approx. 10,000 volts, and each pulse should last approx. 0.0001 seconds, with a maximum energy of 2.5 joules, measured into a 500-ohm load.

The control unit shall be capable of independently monitoring up to six zones, and shall have an adjustable alarm threshold of 2kv, 3kv, 4kv and a pulse count of 2, 3 or 4 missing pulses. It must be capable of detecting any tampering with the electric fence, including a short circuit and open circuit, and the control panel shall be self-monitoring and also have an internal tamper alarm.

The control unit shall be housed in a weatherproof enclosure and have independent pulse and alarm LED indicators for each zone. All alarm outputs should be in the form of a normally closed dry contact in order to easily interface with any standard intruder alarm panel or CCTV system.

The electric fence shall consist of high tensile galvanised steel wires spaced at approx. 95mm to form a grid, strung horizontally between mounting posts, strain posts and insulated support posts as necessary to form an impenetrable barrier. The wires shall be kept at a tension of approx. 20kg each by means of permanent tighteners. The posts of the electric fence shall be secured to and supported by the existing 2.4 metre galvanised metallic perimeter/compound fence, with the gap between the fences not less than 100mm and not more than 200mm. Any additional bracing required shall be provided by the Contractor. A minimum spacing of 1 metre is required between the electric fence and any adjacent building or equipment. The electric fence shall extend above the perimeter fence by at least 600mm, and shall take into account variations in the fence contour, including step changes.

The insulators used for the support posts should be constructed of black U.V resistant plastic material and be in the form of a ring and fitted with a water barrier. The minimum distance from the supported wire to any metal surface should be 25mm. The insulator should be fixed to the support post with a brass pin.

All end and corner insulators should be constructed of black U.V. resistant material. The live wire must not overlap any earthed wire or hook and a water barrier shall separate the live from earth side.

All high voltage connecting cables shall be of galvanised steel wire with a U.V. resistant solid high-density black polyethylene insulation.



# Electro-Fence™

## Electric Security Fence

At gate positions, mild steel galvanised rod of suitable diameter may be used in lieu of the galvanised steel wires to reduce mechanical stresses. Spacings shall remain the same.

At gate positions additional provisions shall be made to reduce the risk of touching live conductors whilst locking/unlocking main personnel gates. These provisions can include added insulation, increased clearances and screening.

All gates shall be fitted with a high voltage gate contact that will give an alarm when the gate is opened. The integrity of the rest of the system shall not be comprised by placing a short circuit across the system when a gate is opened.

Wire mesh screening shall be provided between the perimeter fence and the electric fence in all areas close to public thoroughfares. The screening shall provide sufficient protection against inadvertent contact with live conductors by members of the public, especially children.

Where necessary to ensure continuity of a security barrier the sides and roof edges of perimeter buildings shall be protected by an electric fence at least one metre wide/high, of similar construction to the main electric fence.