



شركة حديد  
الصناعية  
**التقنية العليا**  
**HITECH**  
STEEL INDUSTRIES

# **TECHNICAL SUBMITTAL**

## Anti-Drone Fence



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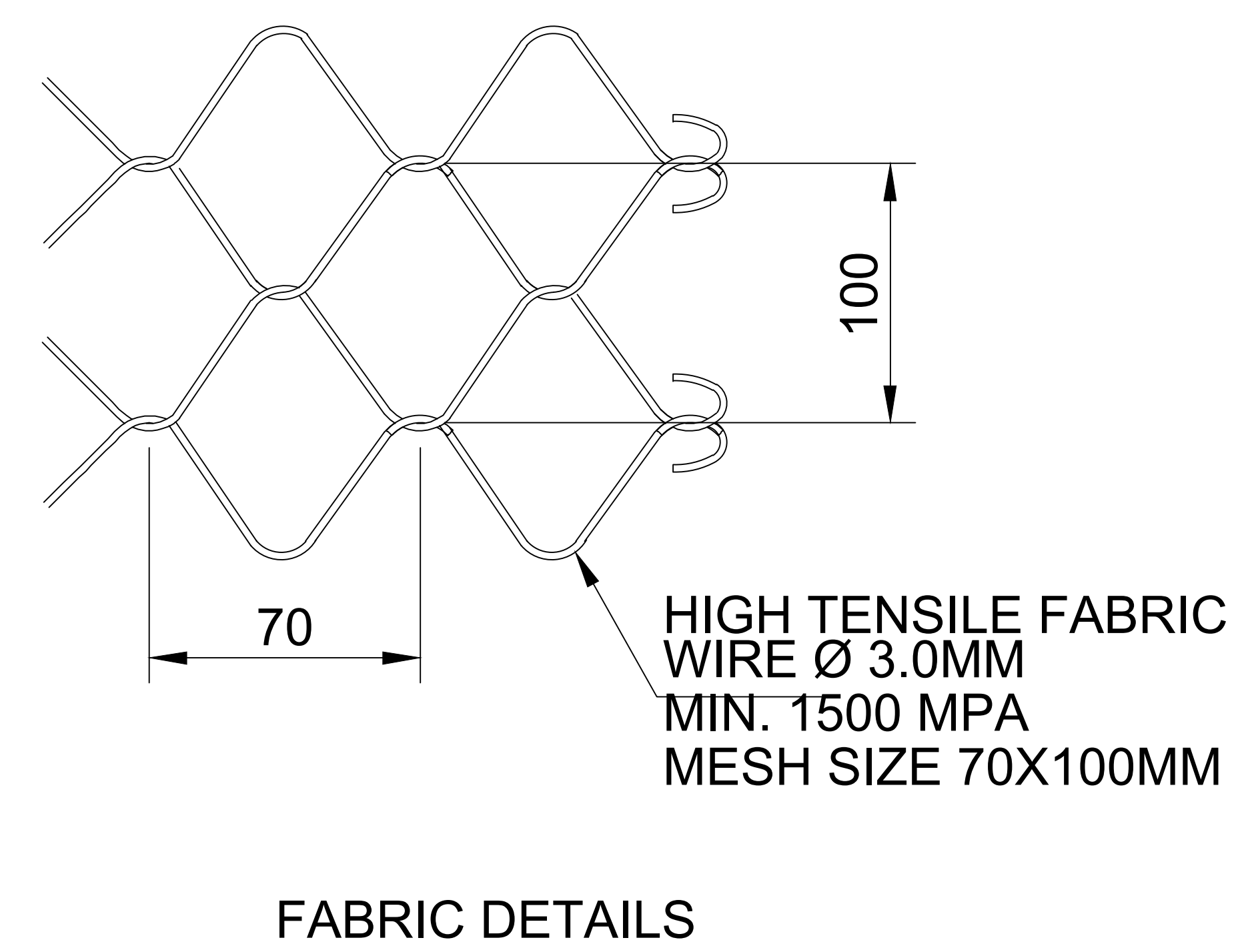
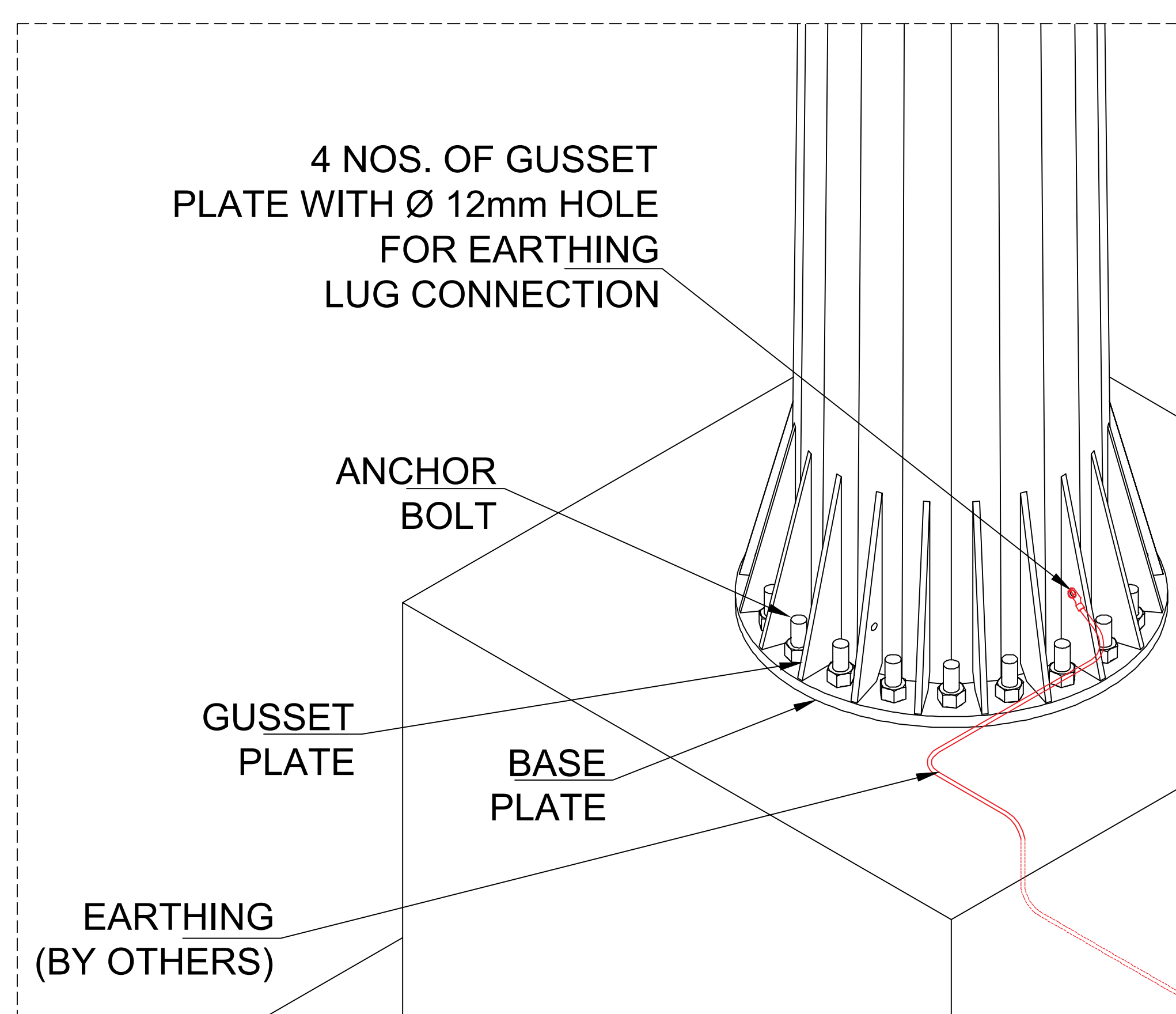
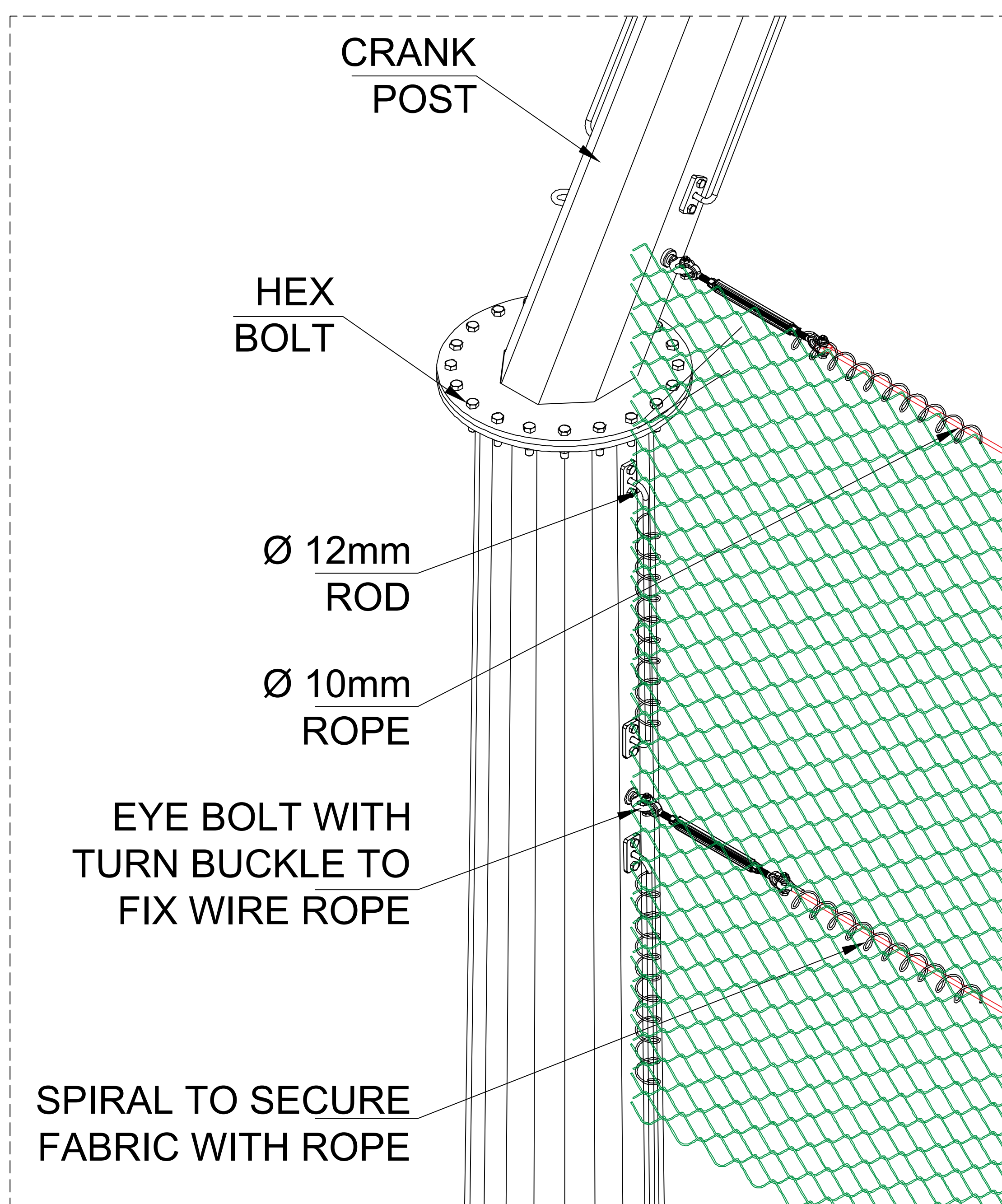
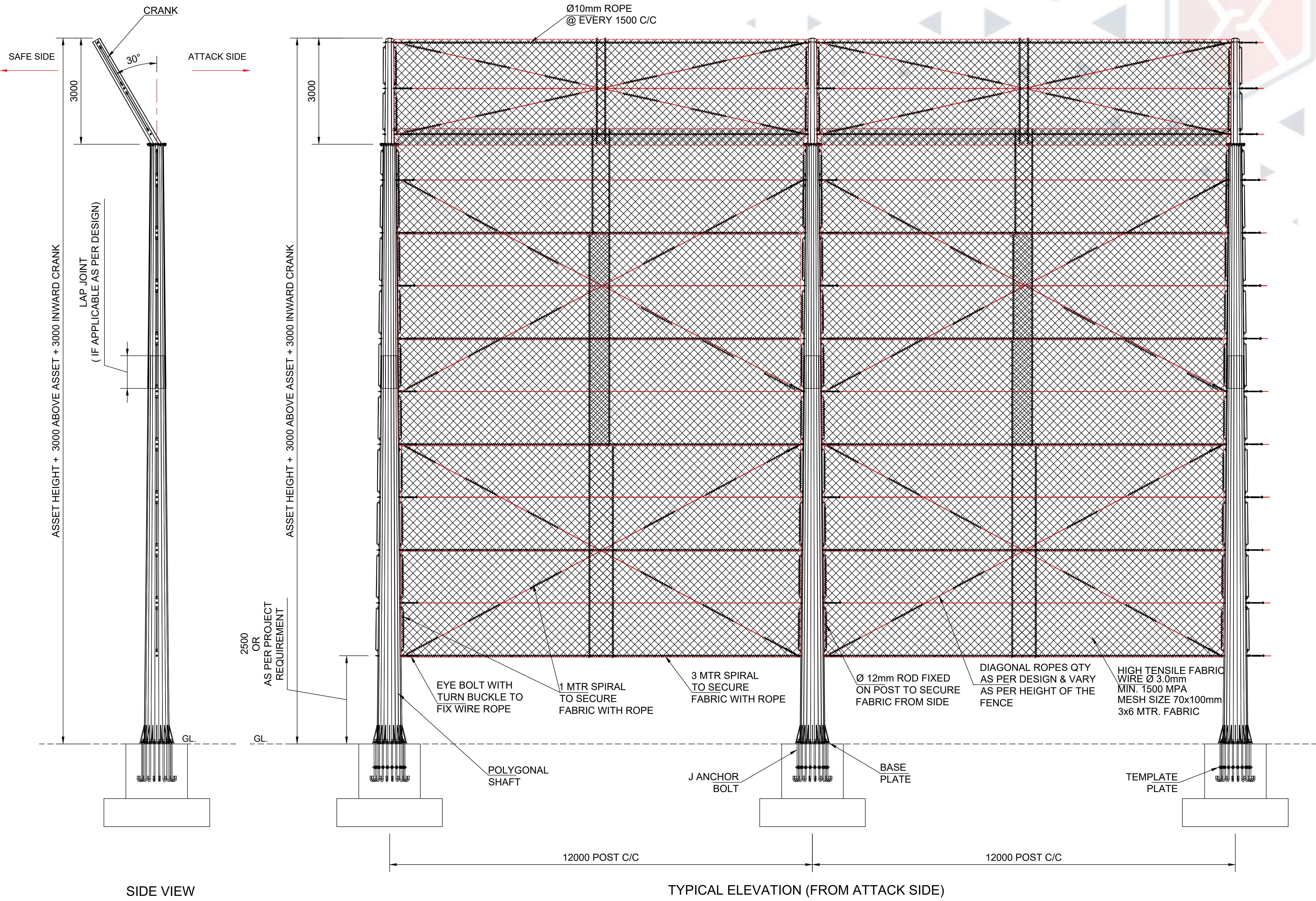


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## Annexure 1 - Technical Specifications for Anti Drone Fence System

### FABRIC and WIRE ROPE SPECIFICATION

Fence Member	Dimension	Description
Fabric	3.0mm	Galvanized High Tensile Wire
	Tensile Strength	Minimum 1500 MPa
	100 x 70	Mesh Size
	Standard 6 Meter Width	in Split lengths of Suitable Size
	Zinc Coating	As per ASTM A 641 Class-3
Wire Rope	10 mm	Galvanized Wire Rope
	Zinc Coating	Heavy Galvanized

### METAL SPECIFICATION

Fence Member	Dimension	Description
Line Post	Profile	Hot Dip Galvanized in accordance with ASTM A123
	Spacing	Every 12 meters
Crank	Profile	Hot Dip Galvanized in accordance with ASTM A123
	Spacing	Over the Pole 3 Mtrs Length @ 30 Degree

All Profiles are made from HR Sheets dully Hot Dip Galvanzzied after fabrication accordance to ASTM A123

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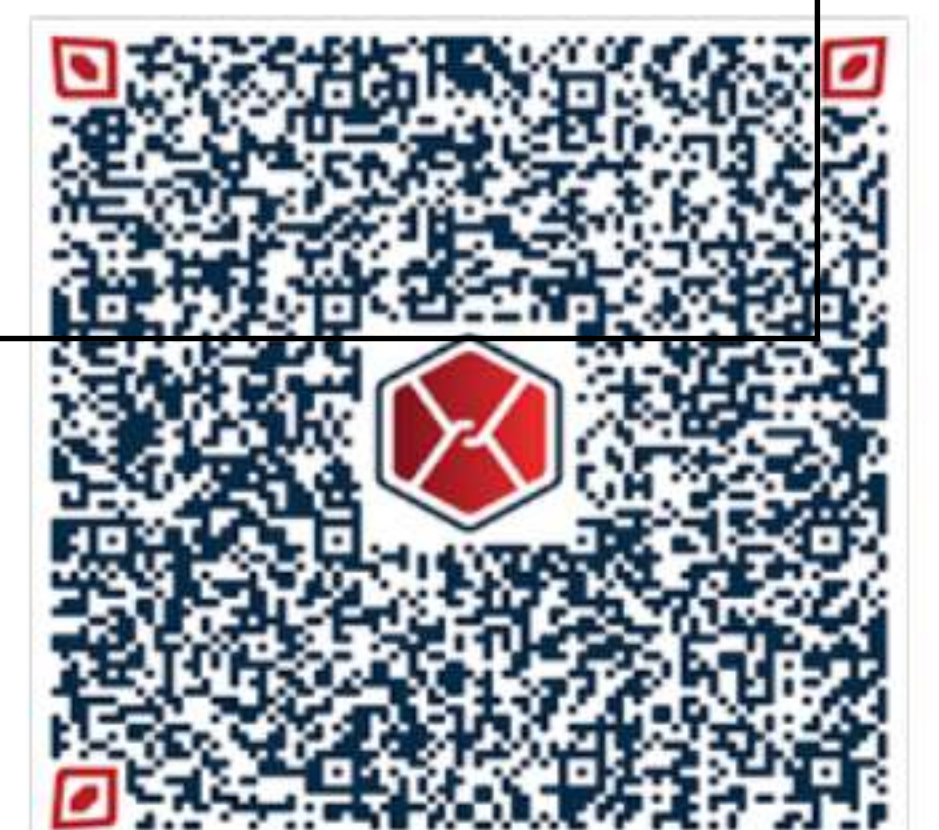
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## Compliance for Antidrone Fence

Kingdom of Saudi Arabia High Commission for Industrial Security SECURITY DIRECTIVES FOR INDUSTRIAL FACILITIES SEC-21 Security Devices			Compliance	Hitech Fence Comments
1	Purpose	The Directive provides the requirement for passive dense measures against drones at facilities under the jurisdiction of the High Commission for Industrial Security (HCIS).	Comply	
2	Scope	This directive provides FO with the basic design and implementation requirements for passive defense measures against the threat of drones and Unmanned Aerial Vehicles to critical infrastructure at Industrial facilities.	Comply	
3	Acronyms & Definitions	Drone - Unmanned Aerial Vehicles less than 25kg FO - Facility Operator: the owner, operator or lessee of a facility FSC - Facility Security Classification HCIS - High Commission for Industrial Security SRA - Security Risk Assessment Shall - Indicates a mandatory requirement Should - Indicates an advisory recommendation SPF - Single Point of Failure UAV - Unmanned Aerial Vehicle	Comply	
4	References	This directive adopts the latest edition of the references listed. The selection of material, and the design, construction, maintenance, operation and repair of equipment and facilities covered by this Security Directive shall comply with the latest edition of the references listed in each Security Directive, unless otherwise noted.	Comply	
		ASTM A121 - Standard Specification for Metallic-Coated Carbon Steel Barbed Wire		
		ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on iron and Steel Products		
		ASTM A123M - Zinc Coatings on Iron and Steel Products		
		ASTM A529 - Standard Specification for Structural Steel With 42 000 Psi (290 Mpa) Minimum Yield Point (1/2 In. (12.7 Mm) Maximum Thickness		
		ASTM A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire		
		ASTM A853 - Standard Specification for Steel Wire, Carbon, for General Use		
		ASTM F1043 - Standard Specification for Strength and Protective Coatings on Steel Industrial Chain Link Fence Framework		
		ASTM F1910 - Standard Specification for Long Barbed Tape Obstacles		
		Standard Specification for Welded Wire Mesh Fence Fabric ASTM F2453 -		
		ASTM F567 - Standard Practice for Installation of Chain-Link Fence		
		ASTM F 626 - Standard Specification for Fence Fittings		
		ASTM F 626 - Standard Specification for Polyvinyl Chloride (PVC) and Other Organic Polymer-Coated Steel Chain-Link Fence Fabric		
		ASTM F934 - Standard Specification for Standard Colors for Polymer-Coated Chain Link Fence Materials		
SEC-01 General Requirements for industrial security.				
SEC-02 - Security Fencing				
5	General Requirement	All other SEC Directives continue to apply to facilities covered by this directive. This directive addresses the specific requirements pertaining to the protection of critical infrastructure and vital equipment in industrial facilities against the threat of drones.	Comply	
5.1	Common requirements of all facilities	All facilities shall comply with the following requirement	Comply	
5.1.1	Security Risk Assesment (SRA)	FO Shall conduct an SRA as specified in SEC-01 to identify the critical assets, Single Point of Failure and Infrastructure which shall be protected against the threat from drones or Unmanned Aerial Vehicles (UAV). The SRA shall be site specific, and address the specific risks to the critical assets or Single Point of Failure associate with drone/UAV threats and propose risk mitigation measures to protect such assets/ Single Point of Failure.	Comply	As a manufacturer, We do not have any commenton this.
5.1.2	Anti-drone Fence Protection	FO shall deploy anti-drone fencing systems to protect the critical assets or Single Point of Failure which are vulnerable against threats from drones/UAVs, based on the following two criteria:	Comply	As a manufacturer, We do not have any commenton this.
5.1.2.1	Criteria 1: Casualty to Criticality of the Facility	The asset shall be vital to the operation of the facility or identified as the Single Point of Failure, such that loss or damage of the specific assets/ SPF will directly results in one or more of the following negative consequences, despite existing mitigation measures and business continuity plans: 1) Serious health and safety impact to offsite & onsite population due to large-scale or flammable release. 2) Major environmental impact to offsite areas 3) Loss of very large capital Investment FO shall ensure that the anti-drone fence structure is property earthed, and shall not generating sparks especially in a hydrocarbon environment by applying suitable solutions.	Comply	As a manufacturer, We do not have any commenton this.





## Compliance for Antidrone Fence

Kingdom of Saudi Arabia High Commission for Industrial Security SECURITY DIRECTIVES FOR INDUSTRIAL FACILITIES SEC-21 Security Devices		Compliance	Hitech Fence Comments
5.2.2	Design Loads	Comply	
5.2.3	Explosive Standoff Distance	Comply	
5.2.4	Environmental Conditions	Comply	
5.2.5	Foundation Design	Comply	
5.2.6	Fence Columns/ Posts Design	Comply	
5.2.7	Design Documentation for HCl S Approvals	Comply	

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