



SPECIFICATION

Supply and Installation of One (1) Hydraulic Vehicle Barrier System

1. Scope

- 1.1. This Specification describes the requirements for supply and installation of one (1) hydraulic raising kerb barrier, hereinafter referred to as the "Barrier System". for protection against ramming of vehicles into the main entrance gate of the State Enterprise "USIE IZOTOP" site located in Kyiv, Ukraine, herein after referred to as "IZOTOP".
- 1.2. The Barrier System will be used within the territory of Ukraine.

2. Key Features, Characteristics, and Technical Requirements

- 2.1. The Contractor shall provide and install the Barrier System at the main entrance of the IZOTOP site that shall withstand a vehicle ramming/attack bearing 20000kg mass travelling with a speed of 50km/hr; and
- 2.2. The Barrier System shall meet the following key features and characteristics:
The Barrier System shall:
 - 2.2.1. Be submerged in ground;
 - 2.2.2. Be controlled from the guard post using manual push bush buttons;
 - 2.2.3. Raise/lower function shall be achievable with electronic access control card readers or biometric readers for example figure print readers;
 - 2.2.4. The emergency lower function shall be incorporated as standard;
 - 2.2.5. In case of power failure, the Barrier System can be lowered or lifted manually with the help of manual hand pumps;
 - 2.2.6. Be installed with dual vehicle safety loop detectors; and
 - 2.2.7. Include the caution lights (red/green) system at both the entry and exit.
- 2.3. The Barrier System shall meet following technical specifications:
 - 2.3.1. Height when raised 1100mm;
 - 2.3.2. Width 2500mm;
 - 2.3.3. Colour: Standard yellow colour with black diagonal strips (both on front and top plate);
 - 2.3.4. Excel load resistance: 50 tons per axle;
 - 2.3.5. Structure: Heavy duty;
 - 2.3.6. Type of Steel: S235;
 - 2.3.7. Traffic Lights: Red/green LED, 200mm diameter, steel post 2 m height and electrostatic powder coated;



- 2.3.8. Hinges: Heavy duty, special design hardened steel;
- 2.3.9. Power: 50-60 Hz (220-240 V) compatible with Ukrainian standard consumer power rating;
- 2.3.10. Power failure: UPS capable to provide power for the system for at least 3 hours with manual hand pump;
- 2.3.11. Speed 3-5 seconds, in emergency 2 seconds;
- 2.3.12. Provided with raise, lower, emergency stop, key operated, keyboard in use light indicator;
- 2.3.13. Connection ports to integrate the barrier system with any card reader system;
- 2.3.14. Proximity sensor: able to sense the position of the barrier;
- 2.3.15. Dual vehicle safety loop detector;
- 2.3.16. Motor power min 4kw, 1500 rpm;
- 2.3.17. Environmental conditions: -30 C to +40, 95% humidity;
- 2.3.18. Easy to maintain, water egress resistant, provided with drainage system; and
- 2.3.19. Equip the hydraulic Barrier System with a backup power source (inverter generator) with a power of at least 6 kW.

3. Testing and Packing

- 3.1. The barrier system, for the shipment to the End-User, shall be packed in accordance with international standards that are applicable for the shipment for this kind of the equipment.

4. Quality Requirements

- 4.1. The Barrier System shall be complaint with British, European, or equivalent manufacturing, installation and operation standards for this kind of equipment.
- 4.2. The Contractor shall confirm compliance to the above-mentioned standards.
- 4.3. All works related to the Barrier System that includes but not limited to excavation, civil works, installation, electrical work, commissioning, paint job, waste removal shall be of high quality with neat, clean and complete finish.
- 4.4. The Contractor shall provide the End-User, all documents related to quality assurance, standard compliance and shipping documents with the Barrier System delivered.

5. Training of End-User

- 5.1. The Contractor shall coordinate installation plan with the End-User.

5.2. The Contractor shall install, configure and commission the Barrier System in presence of the representative/technician(s) identified by the End-User.

5.3. The Contractor shall provide the End-User training on the operation of the Barrier System.

5.4. The Contractor shall provide the End-User training on trouble shooting and minor maintenance of the Barrier System.

6. Operation Acceptance Report

6.1. The Contractor shall provide to the IAEA; operation acceptance report duly signed by the End-User and the Contractor.

7. Delivery Terms

7.1. The Contractor should ensure the availability and installation of the Barrier System within 2 months upon the receipt of IAEA Purchase Order.

8. Deliverable Data Items

8.1. The Contractor shall provide the documents specified in this Specification, in English language, and if available and requested by the IAEA, in other IAEA languages.

8.2. Two complete sets of operation and servicing manuals.

8.3. Technical specification – Complete description of the Barrier System with general technical data and brochure, including configuration, compatibility, reliability, and any other relevant information.

9. Warranty

9.1. Starting from the date of acceptance of the operation of the Barrier System by the End-User, the Contractor shall provide 1 (one) year of full warranty.

9.2. The Contractor warrants that the Barrier System supplied under this Specification shall be new and free from defect in workmanship, material and design and shall operate in accordance with the manufacturer's most current standards.