**Technical Specification**

**for the Manufacture and Supply of Mining Equipment**

**(Fuel Refill Cassette Intended for Fueling Operations in Underground Mine Workings)**

**for the Underground Operations of “Kumtor Gold Company” CJSC**

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| **Item No.** | **List of Key Data and Requirements** | **Key Data and Requirements** |
| 1. | Place of Delivery | “Kumtor Gold Company” CJSC, Kyrgyz Republic, Balykchy city, Narynskoye Highway, 9. |
| 2. | Customer | “Kumtor Gold Company” CJSC, Underground Operations. |
| 3. | General Provisions | The purpose of this technical specification is the procurement of one (1) fuel refill cassette designed for transportation and refueling of underground mining equipment, with the ability to be installed on a multi-purpose self-propelled carrier used for transportation of various loads in underground mining conditions.  The equipment must be:  • New, not previously operated, not refurbished, and not dismantled;  • Fully ready for operation after installation and commissioning;  • Manufactured and supplied in accordance with applicable labor safety and industrial safety standards.  The cassette design must ensure safe transportation and refueling of fuel under underground mine conditions. |
| 4. | Geometrical Characteristics of Mine Workings | Maximum height:  • Capital workings – 5200 mm  • Operational workings – 4500 mm  Maximum width:  • Capital workings – 5500 mm  • Operational workings – 4500 mm  Minimum external turning radius – 7200 mm  Minimum internal turning radius – 3800 mm  *(Turning radii will be clarified after receiving technical descriptions from suppliers.)*  Maximum ramp incline – 15%  Roadway surface – rock. |
| 5. | Environmental Conditions | 1. Altitude – up to 4000 m  2. Ambient temperature: –35°C to +40°C  3. Underground air temperature: +2°C to +5°C  4. Mine water saturation (humidity): 70%  5. Underground ventilation airflow: 20 m³/s  6. Water supply – technical water 7. Gas contamination – none  8. Dust level – none |
| 6. | Equipment Requirements |  |
| 6.1. | Technical Specifications | 1. Purpose: Transportation and refueling of mining equipment with diesel fuel.  2. Model, brand, and manufacturer – to be determined based on selection results.  1. Year of manufacture: 2025. 4. Fuel tank capacity: 3000–5000 liters.  2. Cassette mounting must ensure secure installation on a multi-purpose self-propelled carrier.  3. Structural Features:  • Sealed fuel tank with breather valves and overflow protection  • Fuel filtration system  • Fuel dispensing unit (pump, hose, dispensing nozzle)  • Fuel hose reel – minimum 8 m  • Fuel flow meter  • Grounding system and spark-safe components  • Service and inspection hatches  • Easy installation and removal  4. Material: corrosion-resistant structural steel suitable for petroleum products and underground operation conditions.  5. Dimensions:  • Length – to be determined  • Width – to be determined  • Height – to be determined  **Note**: *The final overall dimensions must ensure safe operation and maneuvering within the mine workings defined in Section 4.*  *Operating conditions: 24/7 continuous duty cycle, shift duration 11 hours, 365 days/year.*  *The Supplier must provide a spare parts kit (ZIP) for maintenance.* |
| 6.2. | Electrical System Requirements | 1. Power supply voltage – 24 V.  2. One (1) yellow flashing beacon.  3. LED parking lights, brake lights, turn indicators and other lighting as provided by the manufacturer.  4. LED lighting for steps, service areas, and working zones.  5. Electrical wiring shall be in non-flammable and waterproof insulation. |
| 6.3. | Platform | 1. Load capacity – to be determined.  2. Lifting mechanism for installation on the self-propelled machine – Required. |
| 6.4. | Body / Structure | 1. Cab and frame protection against falling objects and rollover (ISO 3449 / ISO 3471), ROPS and FOPS certified.  2. Safety and informational labels must be provided in Russian. |
| 6.5. | Fire Safety System | 1. Portable fire extinguishers – 2 units. |
| 7. | Technical Documentation | 1. The Supplier shall provide the complete technical documentation with the equipment (certificates of conformity, technical passports, operation and maintenance manuals, spare parts catalog, and any other required documents for safe operation, customs clearance, and state registration in the Kyrgyz Republic).  2. Operation and Maintenance Manuals – 2 copies.  3. Spare Parts Catalog – 2 copies.  4. Documentation in PDF format on USB – 2 units.  5. Certificate of quality and origin.  *All documents must be provided both in printed and electronic form, in Russian and English.* |
| 8. | Warranty Period | 1. The Supplier shall provide a warranty period for the delivered equipment of 12–24 months from the date of commissioning.  2. The Supplier shall have a service center and spare parts warehouse in the Kyrgyz Republic.  3. If a service center and spare parts warehouse are not available in the Customer’s country, the Supplier shall ensure organization of technical support and maintenance locally. The equipment operates continuously 24/7.  4. The Supplier shall conduct personnel training at the Kumtor mine site. |
| 9. | Acceptance of Equipment | Acceptance of the equipment by quantity and quality shall be carried out at the Kumtor mine site with participation of the Supplier’s representative. |
| 10. | Commissioning | 1. All costs for additional work identified during equipment inspection and commissioning shall be borne by the Supplier. |
| 11. | Quality Evaluation Criteria | 1. After commissioning, evaluation of the equipment shall be carried out during the warranty period. The performance characteristics must correspond to factory specifications.  2. In the event that the equipment does not meet the specified requirements, the Supplier shall bear all costs related to correcting the deficiencies. |
| 12. | Payment Terms and Delivery Schedule | 1. Payment terms: according to the Contract.  2. Delivery shall be carried out at the expense and responsibility of the Supplier.  3. Delivery terms: DAP for non-residents of the Kyrgyz Republic, DDP for residents of the Kyrgyz Republic.  4. Delivery location: Kyrgyz Republic, Balykchy city, Narynskoe Highway, 9.  5. Delivery timeframe: up to 160 calendar days from the date of signing the Contract by the Parties.  6. Assembly and commissioning shall be completed within the timeframes established by the Customer. |
| 13. | Technical Regulations and Standards | The equipment must comply with the requirements of the applicable Technical Regulations of the Customs Union (TR CU 010/2011) *"On Safety of Machinery and Equipment"* and other applicable EAEU requirements (if necessary). |
| 14. | Safety | Braking interlock systems, overload protection, fire protection equipment, and lighting must comply with the technical passports. Moving parts of the equipment that pose a risk to personnel must be guarded, except for parts where guarding is not possible due to their functional purpose. Guards must be supplied complete with the necessary mounting devices. |
| 15. | Note | The requirements specified in this Technical Specification are indicative and may be refined during discussions with potential suppliers. |

**Illustrative photo from the internet**

