**Technical Specification**

**for the manufacture and supply of mining equipment (a fuel dispensing cassette intended for refueling fuels and lubricants 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 | Delivery Location | “KUMTOR GOLD COMPANY” CJSC, Kyrgyz Republic, Balykchy city, Narynskoye Highway, 9. |
| 2 | Customer | “Kumtor Gold Company” CJSC, Underground Operations. |
| 3 | General Provisions | The subject of this Technical Specification is the procurement of one (1) fuel dispensing cassette intended for transportation and refueling of mining equipment with fuels and lubricants (Fuels & Lubricants – F&L) in underground mine workings, with the possibility of installation on a multifunctional self-propelled machine used for transportation of various types of loads in mine conditions.  The equipment must be new, not previously operated, and not refurbished.  Manufacturing and supply must comply with current occupational safety and industrial safety standards.  The cassette design must ensure safe transportation and dispensing of fuel and lubricants in underground mine environments. |
| 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 confirmed after receiving technical specifications from suppliers.)*  Maximum ramp gradient — 15%Road surface — rock. |
| 5 | Environmental Conditions | 1. Altitude — up to 4000 m above sea level.  2. Ambient air temperature: –35°C to +40°C.  3. Underground air temperature: +2°C to +5°C.  4. Underground humidity — up to 70%.  5. Air supply: 20 m³/sec.  6. Water supply — technical water.  7. Gas contamination — none.   1. 8. Dust — none. |
| 6 | Equipment Requirements |  |
| 6.1 | **Technical Specifications** | 1. Purpose: transportation and refueling of mining equipment with F&L.  2. Model, brand, and manufacturer — to be selected based on evaluation.  3. Year of manufacture — not earlier than 2025.  4. Fuel module capacity — according to section 6.2.  5. Cassette mounting: must ensure reliable installation on the multifunctional self-propelled machine.  6. Structural features:  • Sealed fuel tank with breather valves and overfill protection;  • Fuel filtration system;  • Fuel dispensing pumps, hoses, and nozzles;  • Fuel dispensing hose on reel — minimum 8 m;  • Fuel dispensing counters;  • Grounding system and spark-proof components;  • Inspection and service hatches;  • Easy installation and removal.  7. Materials: steel with anti-corrosion coating, suitable for oil products and underground conditions.  8. Dimensions:  • Length — to be determined;  • Width — to be determined;  • Height — to be determined.  **Note**: *Final cassette dimensions must ensure safe placement and operation and comply with mine cross-section conditions specified in section 4.Operating conditions: continuous duty, shift duration 11 hours, 365 days a year.*  *The Supplier shall provide a spare parts kit for maintenance together with the equipment.* |
| 6.2 | Fuel and Lubricants Module | 1. The module must be equipped with separate sealed tanks (compartments), independent from each other, with the following capacity:  • Engine oil — 1 × 500 L  • Hydraulic oil — 1 × 500 or 1000 L (to be agreed)  • Antifreeze — 1 × 500 L  • Used oil — 1 × 500 L  • Additional oil tank — 1 × 250 L  • Additional oil tank — 1 × 200 L  • Lubricating grease system (solid grease) — 1 × up to 50 L  2. Pump type — to be determined.  3. Each type of lubricant must have an individual pump for transfer.  4. A combined pumping and dispensing system is allowed, provided it ensures supply of each fluid without cross-contamination, and includes reliable switching valves that prevent mixing of fluids.  5. Pump capacity when filling tanks — to be determined.  6. Pump capacity when dispensing to equipment — to be determined.  7. Fuel/oil dispensing hose on reel — minimum 8 m.  Emergency alarm indicators.  Safety and identification labels must be in Russian.  The design must ensure convenient access for maintenance and repair. |
| 6.3 | Electrical System Requirements | 1. System voltage — 24 V.  2. Amber flashing beacon — 1 pc.  3. LED parking lights, brake lights, turn indicators and other lighting as provided by the manufacturer.  4. LED lighting for steps, service, and working areas.  5. Electrical wiring in fire-resistant and waterproof protective sheathing. |
| 6.4 | Platform | 1. Load capacity — to be determined.  2. Lifting mechanism for installation on self-propelled vehicle — required. |
| 6.5 | Body Structure | Protection against falling objects / rollover (ISO 3449 / ISO 3471), ROPS and FOPS.  All operational labels and safety plates must be in Russian. |
| 6.6 | Fire Protection System | 1. Portable fire extinguishers — 2 pcs.  2. Fire safety equipment set — 1 set (if provided by the manufacturer). |
| 7 | Technical Documentation | 1. The Supplier shall provide accompanying technical documentation (certificates of conformity, technical passports, operating manuals, spare parts catalog, and all documents necessary for safe operation and customs clearance/registration in the state authorities of the Kyrgyz Republic).  2. Operating and maintenance manuals — 2 copies.  3. Spare parts catalog — 2 copies.  4. Documentation in PDF format on USB — 2 pcs.  5. Certificate of quality and origin.  *All documentation must be provided in both electronic and hard copy, in Russian and English.* |
| 8 | Warranty Period | 1. The Supplier shall provide a warranty period for the supplied equipment of 12 to 24 months from the date of commissioning.  2. Availability of a service center and spare parts warehouse within the territory of the Kyrgyz Republic.  3. If there is no service center and spare parts warehouse in the Customer’s country, the Supplier shall establish and ensure the necessary service and technical support conditions at the Customer’s site. The equipment must be capable of continuous round-the-clock operation (24/7).  4. The Supplier shall provide training for the Customer’s personnel at the Kumtor mine site. |
| 9 | Equipment Acceptance | Equipment acceptance based on qualitative and quantitative parameters shall be carried out at the Kumtor mine in the presence of the Supplier’s representative. |
| 10 | Commissioning | 1. All additional costs associated with work identified during equipment inspection shall be borne by the Supplier. |
| 11 | Quality Evaluation Criteria | 1. During the warranty period, performance evaluation of the equipment shall be carried out. The performance characteristics must comply with the manufacturer’s specifications.  2. In case any non-compliance with the stated requirements is identified, the Supplier shall bear all costs related to rectifying the issues. |
| 12 | Payment Terms and Delivery Schedule | 1. Payment terms: as per the Contract.  2. Delivery shall be carried out at the Supplier’s expense and responsibility.  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 time: up to 160 calendar days from the date of Contract signing by the Parties.  6. Assembly and commissioning shall be completed within the time frame established by the Customer. |
| 13 | Technical Regulations and Standards | The equipment must comply with the applicable requirements of the Technical Regulations of the Customs Union (TR CU 010/2011) *“On Safety of Machinery and Equipment”* and other applicable EAEU regulatory requirements, if necessary. |
| 14 | Safety | Braking interlock systems, overload protection systems, fire safety equipment, and lighting must comply with technical passports.  Moving parts representing a hazard must be protected, except for those where protection is not possible due to functional purpose. Protective guards must be supplied complete with mounting devices. |
| 15 | Note | The requirements stated herein are indicative and may be adjusted during discussions with potential Suppliers. |

**Illustrative photo from the Internet**



