

RFQ for Technical specification

**Injection molding machines and auxiliary equipment to them in the
«UZ - Koram KO » LLC**

1. GENERAL INFORMATION.

1.1 Type of Injection Molding Machines(IMM) - 1300 tons, 850 tons and 350 tons, as well as auxiliary equipment for them.

1.2 The basis and purpose of the acquisition of IMM is to increase the plan for the production of automobiles by «UzAuto Motors» JSC and the development of new projects, which created the need for additional production capacities, and therefore a decision was made to purchase new automatic thermoplastics. Procurement is also driven by production optimization.

1.3 Purchased equipment must be new, not previously used, not in operation, with a year of manufacture no earlier than 2019.

1.4 The annual production volume in our company is 600,000 pieces.

2. FIELD OF APPLICATION.

Injection molding machines are used for the production of injection molded plastic car parts such as wheel cover, grill, panel air inlet, impact bar, fuel door and liner A- front bumper (PP, PA6, PA66+30GF, ABS, ASA, PMMA are used in our factory).

3. TERMS OF USE.

Requirements for the cost of operating equipment. The cost of operating the equipment is in accordance with the recommendations of the equipment manufacturer.

4. TECHNICAL REQUIREMENTS.

4.1 Technical characteristics of injection-molding machines with a clamping force of 1300T, 850T, 350T and auxiliary equipment for them.

| For IMM 1300T | | |
|--------------------------------------|---|--------------------------------|
| № | Name | |
| 1 | IMM type | Hybrid, electric |
| 2 | Clamping Force | not less than 1300 tons |
| 3 | Form opening force | not less than 89 tons |
| 4 | Dimensions of plates (HxW), mm | 2090 x 1880 |
| 5 | Max. plate distance | 2500 |
| 6 | Min. mold height, mm | 700 |
| 7 | Max. mold height, mm | 1200 |
| 8 | Ejection force, tons | not less than 25 |
| 9 | Pusher stroke, mm | not less than 300 |
| Necessary auxiliary equipment | | |
| 10 | Robot | |
| 11 | QMC - Quick Mold Change | with auto clamp |
| 12 | Hot runner controller | 24 zones |
| 13 | Mold temperature controller unit | |
| 14 | Conveyor | |
| 15 | Valve gate system | 8 zones |
| 16 | Dehumidifying unit | 1 000 kg |
| 17 | Hopper loader | 5 h.p. |
| 18 | Clone hopper + Cyclone | |
| 19 | Capacity for raw materials | 1 000 kg |

For IMM 850T

| № | Name | |
|--------------------------------------|----------------------------------|------------------------|
| 1 | IMM type | Hybrid electric |
| 2 | Clamping Force | not less than 850 tons |
| 3 | Form opening force | not less than 65 tons |
| 4 | Dimensions of plates (HxW), mm | 1620 x1540 |
| 5 | Max. plate distance | 2300 |
| 6 | Min. mold height, mm | 500 |
| 7 | Max. mold height, mm | 1200 |
| 8 | Ejection force, tons | not less than 20 |
| 9 | Pusher stroke, mm | not less than 300 |
| Necessary Auxiliary Equipment | | |
| 10 | Robot | |
| 11 | QMC - Quick Mold Change | with auto clamp |
| 12 | Hot runner controller | 8 zones |
| 13 | Mold temperature controller unit | |
| 14 | Conveyor | |
| 15 | Valve gate system | 8 zones |
| 16 | Dehumidifying unit | 500 kg |
| 17 | Hopper loader | 5 h.p. |
| 18 | Clone hopper + Cyclone | |
| 19 | Capacity for raw materials | 500 kg |

For IMM 350T

| № | Name | |
|--------------------------------------|--------------------------------|------------------------|
| 1 | IMM type | Hybrid electric |
| 2 | Clamping Force | not less than 350 tons |
| 3 | Form opening force | not less than 20 tons |
| 4 | Dimensions of plates (HxW), mm | 1000 x1000 |
| 5 | Max. plate distance | 1250 |
| 6 | Min. mold height, mm | 450 |
| 7 | Max. mold height, mm | 1100 |
| 8 | Ejection force, tons | not less than 10 |
| 9 | Pusher stroke, mm | not less than 140 |
| Necessary Auxiliary Equipment | | |
| 10 | Robot | |
| 11 | QMC - Quick Mold Change | with auto clamp |
| 12 | Hot runner controller | 8 zones |
| 13 | Mold temp controller unit | |
| 14 | Conveyor | |
| 15 | Valve gate system | 6 zones |
| 16 | Dehumidifying unit | 500 kg |
| 17 | Hopper loader | 5 h.p. |
| 18 | Clone hopper + Cyclone | |
| 19 | Capacity for raw materials | 500 kg |

4.2 Packaging requirements. Packaging should ensure the integrity, safety and quality of products during transportation and storage.

5. REQUIREMENTS FOR THE RULES FOR DELIVERY AND ACCEPTANCE

5.1 Requirements for product insurance. Insurance of the purchased equipment until delivery to the territory of the customer is provided by the supplier. Equipment insurance for the period of operation - at the discretion of the consumer.

5.2 Requirements for the transfer to the customer of technical and other documents in the delivery of goods. The supplier, upon delivery of the injection molding machine, must provide a technical passport, warranty documents, drawings and other documents related to the equipment.

6. TRANSPORT REQUIREMENTS

Transportation by all means of transport in accordance with the rules for the carriage of goods in force on this type of transport.

7. REQUIREMENTS FOR THE WARRANTY PERIOD

Warranty and post-warranty service requirements. Maintenance and repair during the warranty period is carried out at the expense of the supplier on the territory of the customer. After the warranty period, service is performed by the supplier at the customer's expense.

8. SERVICE REQUIREMENTS

Requirements for the maintenance and operation of the goods. The supplier must provide the consumer with operating instructions for the equipment.

9. QUALITY REQUIREMENTS

The quality of the equipment purchased must comply with the specifications declared by the manufacturer and ensure performance and quality over the life of the product.

10. REQUIREMENTS FOR QUANTITY, PACKAGING, PLACE AND TIME (PERIOD) OF DELIVERY

Equipment delivery must be carried out on the terms stipulated in the supply agreement in accordance with the Incoterms 2010 conditions.

Picking requirement. The documentation transmitted with the goods and the required amount of consumables. The equipment supplier must provide the customer with the following:

- The full information about the components used in the manufacture of parts;
- Two-dimensional(2D) drawings of the purchased equipment.

11. REQUIREMENTS FOR PERSONNEL TRAINING.

Personnel training should be carried out by specialists of the supplier of equipment on the territory of the customer.

12. INSTALLATION AND START-UP.

Installation supervision and commissioning are carried out by the equipment supplier in accordance with the requirements for the installation and operation of the equipment.

13. ADDITIONAL (OTHER) REQUIREMENTS

The equipment must comply with all available regulatory technical documents in the field of technical regulation in force on the territory of the Republic of Uzbekistan.

Origin of Main Parts

| Part | | |
|----------------------------------|-------|--------|
| | Maker | Origin |
| Fixed platen | | |
| Moving platen | | |
| Rear platen | | |
| Servo Pump Motor | | |
| SSR | | |
| Computer Control System | | |
| Proximity Switch | | |
| Auto Lubricator | | |
| Solenoid Valve | | |
| Proportional Valve | | |
| Relief Valve (Directional Valve) | | |
| Back Pressure Valve | | |
| Warning Lamp | | |
| Cooler | | |
| Potentiometer | | |
| Hydraulic Motor | | |
| Distributor | | |
| Screw | | |
| Tie Bar | | |
| Motor | | |
| Heater Band | | |
| Thermocouple | | |
| Transformer | | |
| non- Fuse Circuit Braker | | |