



"APPROVE"  
Chief mechanical engineer  
of "Shurtan GCC" LLC



**TECHNICAL ASSIGNMENT**  
for purchasing of the spare parts  
for the gear pump,  
for the needs of "Shurtan GCC" LLC.

## **1. GENERAL INFORMATION**

### **1.1 Name**

Gear pump.

### **1.2 Reason and purpose of purchasing goods.**

Reason: Annual application of the polyethylene production shop for 2022.

Purpose: Replacement of a failed gear pump.

### **1.3 Information about novelty (year of production / release of goods)**

The equipment must be new, not previously used.

All components, assemblies, parts and components must be manufactured no earlier than 2021.

### **1.4 Development / production stages**

According to the NTD and design documentation of the manufacturer.

### **1.5 Documents for development / production**

The supplier must be a manufacturer or an official dealer of the manufacturer (it is obligatory to provide a copy of the dealer certificate). The participant is obliged to provide information about the manufacturers of the supplied products.

## **2. SCOPE OF USE**

The GA-2155 gear pump is used to lubricate the bearings of the reactor system installed at the Reaction and Recycle Unit, designed to supply Spartan-150 lubricating oil to the reactor's autoclave stirrer.

## **3. SERVICE CONDITIONS**

### **3.1 General operating conditions**

Place of operation: Polyethylene production shop, reaction and recycling unit of Shurtan GCC LLC.

Pump operating mode: Continuous operation, 8000 hours per year.

## **4. TECHNICAL REQUIREMENTS**

### **4.1 Basic technical requirements.**

#### **Working mode of GA-2155 gear pump:**

Working environment: Spartan-150;

Suction temperature: 60°C;

Productivity: 0.09 m<sup>3</sup>/h;

Pump rpm: 1500 min<sup>-1</sup>

Inlet pressure: P=400 kPa;

Outlet pressure: P=1600 kPa;



Difference:  $P=1200$  kPa.

**Design:**

Model: OPL003PSJBV;

Type: gear;

Number of gears: 2 pieces;

Additional parameters are specified in paragraph 8 of this TECHNICAL ASSIGNMENT

**4.2 Main technical, economic and operational indicators:**

For stable operation of the gear pump, the period of repair and replacement of spare parts should be no more than once every 2 years.

Before delivery of the gear pump, a detailed drawing of the gear pump is provided to the Customer for approval.

Participating companies submit their technical and commercial proposals to the Customer. The customer must give a technical opinion.

The gear pump must comply with the specifications and performance of the ULTRA PUMP Inc pump, the polyethylene production shop currently uses a pump from this company. A similar product that is completely identical in function, application, brand, model, quality and technical characteristics of the above pump can be provided.

**4.3 Design requirements, installation and technical requirements:**

The gear pump offered by companies must match the design dimensions, location of the gear pump installed in the polyethylene production workshop.

**4.4 Labeling requirements**

The marking must comply with the requirements of the state standards of the Republic of Uzbekistan, which do not contradict and are not inferior to generally accepted international standards. The labeling of the goods must contain the deciphered name of the equipment, the name of the manufacturer, the address of the manufacturer's location, the date of issue and other necessary information. The main marking data should contain:

- name or trademark of the manufacturer;
- conditional designation of equipment;
- designation of the standard or specifications;
- nominal values of feed, head (pressure) and speed;
- serial number of the pump according to the manufacturer's system;
- year of manufacture of the equipment.

**4.5 Dimensions and packaging requirements**

Dimensions of goods according to the regulatory and technical documents of the manufacturer.





Packaging must be carried out in such a way as to exclude the movement of goods in containers during loading, transportation and unloading. The container must be marked in accordance with the requirements of GOST 14192-96.

#### **4.6 Requirements for spare parts and consumables**

In addition to the gear pump provided by the companies, a two-year spare part kit must be supplied. One set of gears and wearing parts.

### **5. REQUIREMENTS FOR THE RULES OF DELIVERY AND ACCEPTANCE**

#### **5.1 Order of delivery and acceptance, additional requirements of the Customer**

Acceptance of the gear pump is carried out by the Customer for commissioning and test run, lasting 72 hours, if the technical parameters comply with clauses 4.1 and 4.7 of this TOR, after which an acceptance certificate is drawn up in accordance with the contract.

Acceptance and incoming control of the Products for compliance with the quantity, quality and dimensions is carried out at the Customer's warehouse. In case of non-compliance of the delivered goods with the order specification or if the goods have not passed the incoming quality control, the Supplier is obliged to replace them within the period specified in the supply contract. Transportation costs for the replacement of the goods are borne by the Supplier of the goods.

#### **5.2 Requirements for the transfer to the customer of technical and other documents upon delivery of the goods.**

The product must be accompanied by the following documentation:

- certificate of conformity of goods;
- certificate for materials for manufacturing;
- technical passports of goods;
- manufacturer's test report;
- an invoice (invoice) of the Seller with a description of the goods, indicating the quantity, unit price of the goods and the total amount;
- waybill issued in the name of the consignee with a mark of the departure station and a mark of the destination, the name of the Customer, the number and date of signing the current contract;
- certificate of origin of the country of goods indicating the number and date of the invoice;
- packing list;
- test report of the goods by an independent inspection company (third party)
- certificate of quality of goods issued by the manufacturer;
- product safety data sheet.

### **6. REQUIREMENTS FOR QUALITY AND CLASSIFICATION**

The goods must be of high quality, the quality guarantee period is at least 2 years.

It is necessary to provide certificates (international standards ISO 9001, 14001, 45001, 50001 manufacturer's quality certificate and / or other certificates of international recognized laboratories and testing centers).



The service life of the goods in accordance with the normative and technical documentation is 4 years.

## 7. REQUIREMENTS FOR QUANTITY, COMPLETING, PLACE AND TERM (FREQUENCY) OF DELIVERY

No.	Name of produc	Technical data	Unit.	Qty
1	Gear pump GA-2155	Model: OPL003PSJBV	piece	2
2	Biennial Spare Parts			
Delivery time of the goods is 2 months (60 calendar days) after the conclusion of the contract. Wagon / container delivery: DAP – railway station Kengsoy (station code - 732602), "Uzbekiston Temir Yullari", SJSRC.				
Transport supply: DAP - Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300.				

## 8. LIST OF APPLICATIONS

No	Name of application	Number of sheets
1	Gear pump drawing	1 sheets

\*Note: The developer is responsible for the correctness of filling and unfilled items.

### Developers:

Deputy Chief Mechanical engineer:

\_\_\_\_\_ E. Karagadaev

An Engineer of the Chief Mechanical engineer's department:

\_\_\_\_\_ F. Botirov

An Engineer of the Material and

technical resource management service:

\_\_\_\_\_ U. Khidirov  
\_\_\_\_\_ U. Bazarov  
\_\_\_\_\_ SH. Shukurov  
\_\_\_\_\_ G. Rahmonov

Chief of the Utility shop:

Senior mechanic of the Utility shop:

Leading mechanical engineer:

FLW SIZE	LOW PRESSURE PORT	MINIPL THREAD	HIGH PRESSURE PORT	MINIPL THREAD
003	3/4 - 16 UN	560	3/4 - 16 UN	560
006	3/4 - 16 UN	560	3/4 - 16 UN	560
008	3/4 - 16 UN	560	3/4 - 16 UN	560
011	3/4 - 16 UN	560	3/4 - 16 UN	560
013	3/4 - 16 UN	560	3/4 - 16 UN	560
019	7/8 - 14 UN	450	3/4 - 16 UN	560
025	7/8 - 14 UN	450	3/4 - 16 UN	560

Technical drawing of a 4-hole 1/4-20 UNC plate. The drawing shows a rectangular plate with four holes arranged in a square pattern. The dimensions are as follows:

- Overall width: 1.90
- Overall height: 1.45
- Distance between hole centers (pitch): 0.94
- Distance from the center of the hole pattern to the nearest edge (offset): 0.47
- Text: "4 Hole 1/4 - 20 UNC" and "x 530 minimum thread"
- Text: "2 360"

Ports are identical both sides

