

TECHNICAL ASSIGNMENT
for the purchase
radial piston pump for the needs of LLC "Shurtan GCC"

«ShGCC», LLC-2021.

1. GENERAL INFORMATION

1.1 Name
Radial piston pump
1.2 Reason and purpose of purchasing goods
Reason: Approved application of the polyethylene production shop for 2021. Purpose: Replacement of a failed radial piston pump
1.3 Information about the novelty (year of production/ release of the product)
The equipment must be new, not previously used. All components, assemblies, parts and components must be manufactured no earlier than 2021.
1.4 Stages of development / manufacture
According to the NTD and CD of the manufacturer.
1.5 Documents for development / manufacture
According to the NTD and CD of the manufacturer.

2. SCOPE OF APPLICATION

1. The radial piston pump is used to pump hydraulic oil under high pressure into the mandrel and the cylinders of the receiving device.

3. OPERATING CONDITIONS

3.1 General operating conditions
Place of operation: Workshop for the production of polyethylene, pallet machine LLC "Shurtan GCC".
Pump operation mode: Periodic operation, used only during loading.

4. TECHNICAL REQUIREMENTS

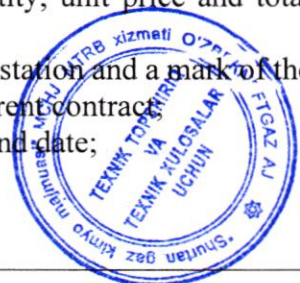
4.1 Основные технические требования для радиального поршневого насоса	
Operating mode Fluid: Hydraulic oil VG 46; Suction temperature: 100 °C; Capacity: 100 cm ³ /rev; Pump RPM: 1800 min ⁻¹ Inlet pressure: P=28000 kPa; Construction Model: MOOG RKP D956; Type: Radial Piston; Piston number: 1 piece; Fitting: ANSI 22mm (7/8");	
Parameters of the radial piston pump	
Displacement [cm ³ /rev.]	100
Weight [kg]	71
Mass moment of inertia (kg/cm2)	186,3
Linear connections: according to ISO 6162 medium pressure series 280 bar (4000 psi)	SAE 1.1/4" 6000 psi SAE 2" 3000 psi
Recommended outer diameter of the pipe for drain lines (lightweight version)	22mm (7/8 ")
Ambient Temperature Range	from -15 ° C to +60 ° C
Maximum speed (min-1)	1800
Hydraulic fluid	Mineral oil by DIN 51 524
Hydraulic fluid temperature range	From -15 ° C to +80 ° C
Viscosity	Permissible operating range from 12 to 100 mm ² /s (cSt); it is recommended from 16 to 46 mm ² / s (cSt). Hydraulic fluid according to ISO viscosity class VG 46



	or VG 32 Max. viscosity 500 mm ² /c when starting at 1800 rpm.
Filtering	NAS 1638, Class 9; ISO/DIN 4406, Class 20/18/15; Obtained with a filter fineness from $\beta_{20} = 75^2$)
The radial piston pump must comply with the technical and operational characteristics of the Moog Radial Piston Pump RKP pump, the polyethylene production shop currently uses the pump of this company. A similar product, completely identical in function, application, brand, model, quality and technical characteristics of the above pump can be provided.	
4.2 Design requirements, installation and technical requirements	
The radial piston pump offered by the companies must correspond to the location of the radial piston pump installed in the polyethylene production shop.	
4.3 Requirements for materials	
According to the NTD and CD of the manufacturer. Provide certificates of the material.	
4.4 Marking 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 international generally accepted standards. The marking of the goods must contain the decrypted name of the equipment, the name of the manufacturer, the address of the manufacturer's location, the release date and other necessary information. The basic marking data must contain:	
<ul style="list-style-type: none"> - name or trademark of the manufacturer; - symbol equipment; - designation of the standard or technical conditions; - nominal values of feed, head (pressure) and speed; - serial number of the pump according to the system of the manufacturer; - year of manufacture of the equipment. 	
4.5 Size and packaging requirements	
The dimensions of the goods according to the regulatory and technical documents of the manufacturer. Packaging should be carried out in such a way as to exclude the movement of cargo in containers during loading, transportation and unloading. The container must be marked in accordance with the requirements of GOST 14192-96.	
4.6 Требования к ЗИП и быстроизнашивающимся деталям	
Provided by companies, the radial piston pump must additionally have two-year spare parts. One set of pistons, two sets of oil seals and wear parts.	

5. REQUIREMENTS FOR THE RULES OF DELIVERY AND ACCEPTANCE

5.1 The order of delivery and acceptance, additional requirements of the Customer
<p>The goods are accepted after the test, in accordance with the technical parameters of paragraph 4.1, after which the acceptance certificate is issued in accordance with the contract.</p> <p>Acceptance and input control of Products for compliance with quantity, quality and size is carried out at the Customer's warehouse. In case of non-conformity of the delivered goods with the ordered specification or if the goods have not passed the entrance quality control, the Supplier is obliged to replace it within the period specified in the delivery contract. The transportation costs for the replacement of the goods are borne by the Supplier of the goods.</p>
5.2 Requirements for the transfer of technical and other documents to the customer when delivering the goods.
<p>The product must be accompanied by the following documentation:</p> <ul style="list-style-type: none"> - certificate of conformity of the goods; - invoice (invoice) Seller with a description of the goods, indicating the quantity, unit price and total amount; - a bill of lading 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 of the current contract; - certificate of origin of the country of the goods indicating the invoice number and date; - packing list; - certificate of quality of the goods issued by the manufacturer; - product safety data sheet.



6. QUALITY AND CLASSIFICATION REQUIREMENTS

The product 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 test centers).
The service life of the product in accordance with the regulatory and technical documentation is 4 years.

7. REQUIREMENTS FOR QUANTITY, CONFIGURATION, AND DELIVERY TIME (PERIODICITY)

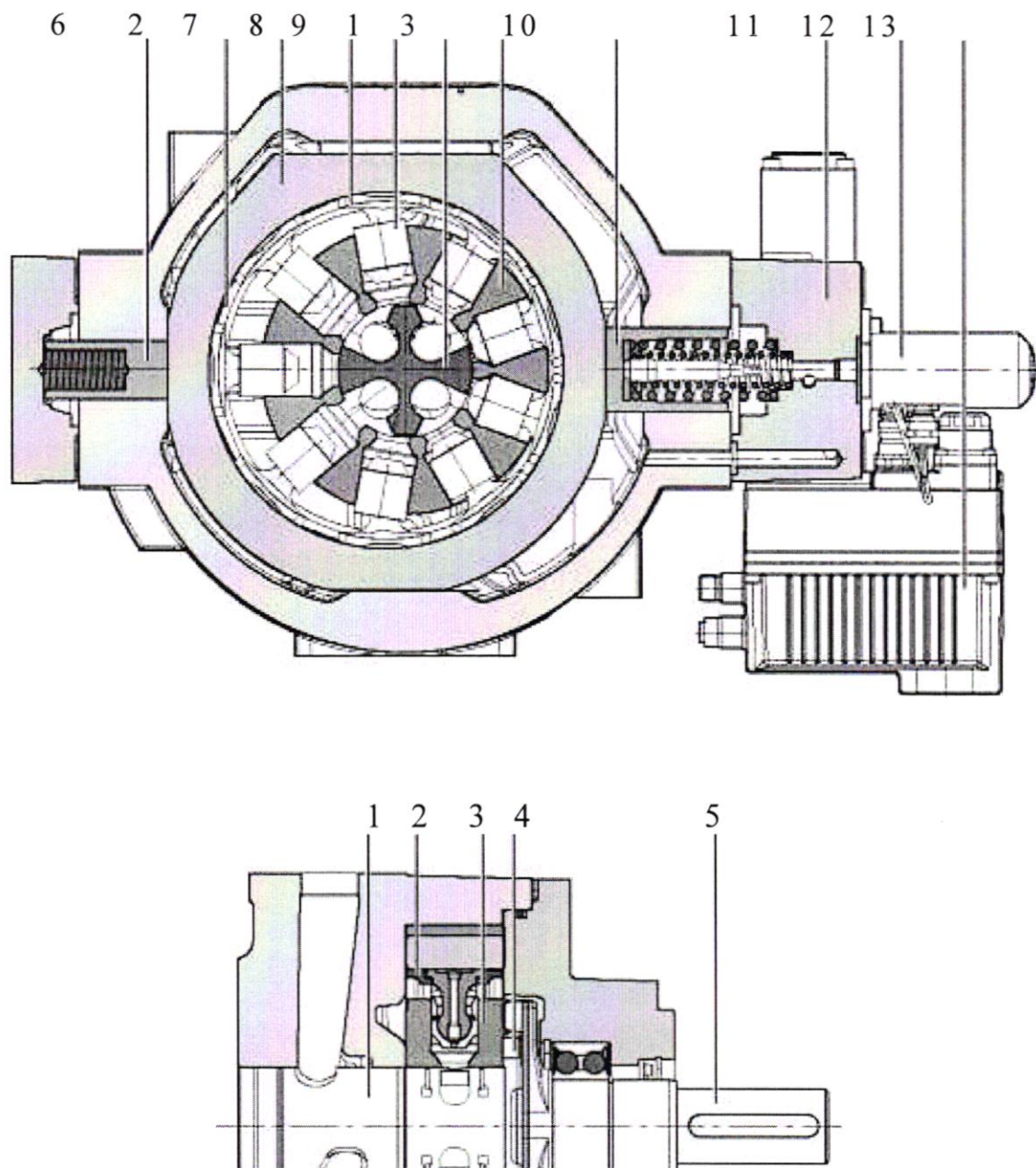
No	Product name	Technical data	Unit	Qty
1	Radial piston pump	Model: D956	Pieces	1
2	Two-year spare parts			

Before delivery of the radial piston pump, the Customer is provided with a detailed drawing of the radial piston pump for approval.
The companies participating in the competition submit their technical and commercial proposals to the Customer. The customer must give a technical conclusion.
The delivery period of the goods is 2 months (60 calendar days) after the conclusion of the contract.
Transport delivery: CIP - Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300

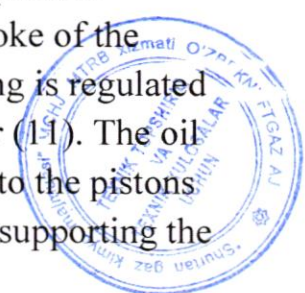
8. LIST OF APPLICATIONS

No	Name of the application	Number of sheets
1	<i>Drawing of radial piston pump</i>	<i>2 (two) sheets</i>

**If there is a misunderstanding or an error in the English version of the terms of reference, use the Russian version.*



The shaft (5) transmits torque to the star-shaped cylinder block (3) without any transverse forces through a cruciform coupling (4). The cylinder block is supported by a control neck (1). Radial pistons (9) in the cylinder block move to the piston ring (7) through hydrostatic balanced shoes (8). The piston and sliding cushions are connected by a ball joint and a joint that is fixed by a ring. The sliding pads are guided in the piston ring by two locking rings (2) and are held on the piston ring by centrifugal force and oil pressure during operation. When the cylinder block rotates, the pistons reciprocate due to the eccentric position of the running ring, and the stroke of the piston is twice the eccentricity. The eccentric position of the running ring is regulated by two diametrically opposite control pistons (6, 10) and a compensator (11). The oil flow to and from the pump passes through the pump ports, as well as into the pistons and exits them through the holes in the control pin. The rolling bearing supporting the drive shaft is only exposed to external forces.



The compensator setting limits the pressure in the system and regulates the pump flow between zero and full flow to maintain the set pressure. In RKP-D, the position of the piston ring is determined by LVDT (12) and dynamically regulated by a servo-tight valve (13).

