



**CONFIRM**

Chief metallurgist of Shurtan GCC LLC

Kh. A. Makhmudov

2021



№ 074/ 007 – 1843 (eng)  
dd. 2021 y “18” Avgust

**TECHNICAL ASSIGNMENT**  
for purchasing Repair kit for control valve  
for the needs of Shurtan GCC LLC

SGCC - 2021

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*[Signature]*

## 1. GENERAL INFORMATION

1.1. Name
The present technical assignment is developed for purchasing repair kit for control valve
1.2. Basis and purpose of purchasing goods
Basis: Approved annual request for purchasing spare parts, materials, and equipment at the instrumentation and automation unit for 2022. Purpose: stable operation of existing control valves.
1.3 Information about novelty (year of production/manufacture of goods)
The supplied goods must be new, not previously used, and produced no earlier than 2020 and meet safety and quality standards according to the law of the Republic of Uzbekistan.
1.4 FTP code and other international codes, if applicable
The manufacturer of the goods should provide the FTP code or other international codes.

## 2. SCOPE OF APPLICATION

Existing control valves are used in technological processes, with ultra-high pressure steam applications. The valves are designed to seal the flow of the working medium on pipelines with elevated temperatures, high pressure and abrasive media. Since the valves are operated under very harsh conditions (duty cycle is over 8000 hours per year), frequent wear of the main internal valve structures is revealed

## 3. OPERATING CONDITIONS

3.1 Basic operating conditions
Working site - indoors with forced ventilation; Ambient temperature range: from +5 to +55°C; Ambient relative humidity: from 5% to 80%; Valve parts are subject to normal wear and should therefore be periodically inspected and replaced as necessary. The periodicity of maintenance inspections depends on the severity of the operating condition
3.2 Additional/special requirements for operation
The valves are widely used, depending on actual temperatures, pressures and other operating conditions.

## 4. TECHNICAL REQUIREMENTS

### 4.1. Basic technical requirements

№	Name of product	Specifications	Unit	Quantity
Technical parameters for the existing control valves				
1	Repair Kit for control Valve for item. LV-22029	<b>Body model: ET Size-1inch</b> Valve-Through Spherical Design, Tem- 260C Design, Pressure Design-4.135 Mpa (G), Connected - Class 300, Inlet - RF Flange, Outlet - RF Flange, Material-WCB ss., Pass - Holes, Flow Direction - DOWN. Medium - HP Condensate, Flow rate (Qs) - 15.650 m3/h. Pressure input (P1) - 3416.000 kpa, Pressure output (P2) - 2815.998 kpa, Temper (T) -125.000 deg °C Bandwidth (Cv) - 3.307 Guide of Trim-76, the Node of the sleeve material - NONE, the Cage material - the Saddle material - 17-4 PH H900 Metal, the Plunger material - 420 SST, the Guide - Gage, Balance - Balanced, a tightness Class - Class IV, the opening Size - 1 5/16 inch, Throughput characteristic - CavIII 1/Lin, the Rod material - 316SST St Hd, the Size a rod-1/2 inch, Covers - Plain, Covers a ledge diametri-2 13/16 inch.	set	1



		SEAL RING/SPR,RADIAL	10A4207X012	1 pc		
		RING,BACK-UP	10A4209X012	1 pc		
		RING,RETAINING,EXT	10A4211X012	1 pc		
		SEAT RING	23A7567X012	1 pc		
		PLUG/STEM,CAV III	28A1001X022	1 pc		
		CAGE,CAVIII,1 STAGE	38A1018X012	1 pc		
2	Repair Kit for control Valve for item. FCV-61101	<b>Body model: ET Size: 3" S.n: 15160368</b> ANSI Class 600 in;RF FLG out; RF FLG Medium: Water. Flow rate (Q) - 150000 Kg/h. Pressure input (P1) - 7200.000 Kpa (g), Pressure output (P2) - 6800.000 Kpa, Temp. (T)-108.000 deg °C.			set	1
		GASKET SET	RGASKETX272	1 pc		
		KIT,REPAIR	RPACKX00022	1 pc		
		SEAT RING	1U222646172	1 pc		
		RING,PISTON	1U2258X0012	1 pc		
		PLUG/STEM,BAL	1V6575X0052	1 pc		
		CAGE,EQ%	2U223733272	1 pc		
3	Repair Kit for control Valve for item. FCV-61201	<b>Body model: ET Size: 3" S.n: 15160367</b> ANSI Class 600 in;RF FLG out; RF FLG Medium: Water. Flow rate (Q) - 150000 Kg/h. Pressure input (P1) - 7200.000 Kpa (g), Pressure output (P2) - 6800.000 Kpa, Temp. (T)-108.000 deg °C.			set	1
		GASKET SET	RGASKETX272	1 pc		
		KIT,REPAIR	RPACKX00022	1 pc		
		SEAT RING	1U222646172	1 pc		
		RING,PISTON	1U2258X0012	1 pc		
		PLUG/STEM,BAL	1V6575X0052	1 pc		
		CAGE,EQ%	2U223733272	1 pc		

#### 4.2 Main technical, economic and operating characteristics

Not required

#### 4.3 Reliability requirements

The average life of spare parts per year, for the operation of the corrosive environments, the service life depends on the properties of the corrosive environment, operating conditions, and materials used.

#### 4.4 Design requirements, installation, and technical requirements

For replacing parts, it is necessary to use only parts produced and supplied by the company item numbers and names of spare parts are indicated per the manufacturer's technical documentation attached to the present technical assignment

#### 4.5 Requirements for materials

See technical data in item 4.1

#### 4.6 Requirements for stability and parameters exposure to environmental factors

At exposed to environmental factors, avoid harmful effects such as high temperature and corrosive environment. Protect against mechanical damage during storage, transportation, and packing.

#### 4.7 Requirements for power supply

Not required

#### 4.8 Requirements for instrumentation and automation

Not required

#### 4.9 Requirements for components, initial and operational materials

see technical data in item 4.1

#### 4.10 Requirements for labeling

Equipment must be labeled in Russian and should be clearly indicated. The manufacturer, batch number, and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment.

#### 4.11 Requirements to sizes and packing

The goods are delivered in containers/packing. Containers and packing should have a presentation to ensure the safety of goods from mechanical damage during loading and unloading, during transportation, in addition to long-term storage (as per the manufacturer's requirements). Protect against mechanical damage during storage, transportation, and packing.

#### 4.12 Requirements for spare parts and wearing parts

Not required

### 5. REQUIREMENTS TO RULES FOR DELIVERY AND ACCEPTANCE

#### 5.1 Order of delivery and acceptance

The goods should be accepted after incoming inspection and drawing up a report following the contract.

The Customer accepts the goods according to the quantity, quality, complete of the lot, and the external signs of the safety of the goods (mechanical damage, visible deformation, and other similar damage) following the transport and enclosed documents, the manufacturer's quality certificates.

Being parties agree that the visual inspection of the goods carried out by the Customer representative must be absolute and final for the parties to determine the conformity according to quantity, complete and external signs of goods safety during transportation.

Goods should have certificates of conformity and certification test reports confirming the applied for characteristics, accompanied by documentation for installation, commissioning and operation.

All accompanying documentation should be drawn up in Russian or English and handed over to the Customer along with the supplied goods. The equipment supplied should be designed to operate continuously around the clock under specified conditions for specified service life. Equipment must be labeled in Russian and clearly indicated. The manufacturer, batch number and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment. Versions of technical parameters and characteristics of equipment and materials offered by the Bidder that are not specified in the technical assignment are agreed additionally.

At receiving the goods from the carrier, the Customer (consignee) should check the conformity of the goods with the information specified in the contract, specifications, or additional agreements to it, as well as in transport, enclosed documents, and the manufacturer quality certificates.

In case receiving the goods from the carrier, if non-conformity of the goods according to quality/quantity is determined, the Customer (consignee) has to stop receiving the goods. Take measures to ensure the safety of the goods and prevent mixing with other uniform goods as well as notify the Seller about this in writing within 5 (five) working days from the date of finding the shortage.

The Seller is obliged to send the Customer (consignee), no later than 10 (ten) working days from the date of receipt of the notification, a response about the participation of his representative in the further acceptance of the goods. The Seller's representative must participate in the acceptance of the goods within a reasonable time, not exceeding 20 (twenty) calendar days from the date of receipt of the notification.

#### 5.2 Requirements for transfer of technical and other documents to the Customer at goods supply

The Supplier has to provide the following documents confirming the compliance of the goods with the established requirements:

Certificates (bills) of compliance with the requirements of GOST and safety;

Specification of the main equipment accessories with an indication of manufacturers, as well as the attachment of certificates of conformity to them;

Installation, commissioning and operation documentation in Russian or English;

All supplied equipment passes through incoming control for receipt of the equipment at the warehouse.

The goods must be accompanied by the following documentation:

- it is necessary to provide a certificate of conformity of the goods;

- Seller's invoice with a description of the goods, indicating the quantity, unit price, and total amount;

- a bill of lading issued in the name of Consignee, name of Customer, the number and date of signing of the existing contract;

- certificate of origin of the country of the goods indicating the number and date of the invoice;

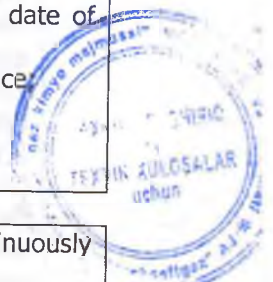
- packing list;

- certificate of quality of the goods issued by the manufacturer;

- safety data sheet

#### 5.3 Requirements for insurance of goods

The goods must be insured. The equipment supplied must be designed to operate continuously around the clock under specified conditions for a specified service life.



## 6. TRANSPORTATION REQUIREMENTS

After the manufacture of spare parts, pack in a box and protect against mechanical damage. The goods should be shipped in the manufacturer standard packing (sealed, tight, and duly packaged) ensuring its full safety from all kinds of damage during long-term storage and transportation of products, taking into account several overloads in transit.

Other options and package sizes are subject to additional approval by the Customer to their acceptability.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

## 7. REQUIREMENTS FOR STORAGE

At storage spare parts, avoid harmful effects such as high temperature and corrosive environment and protect against mechanical damage.

## 8. REQUIREMENTS FOR SCOPE AND-OR GUARANTEE PERIOD

The guarantee period for the supplied materials and equipment is as per the certificate of origin, but not less than 12 months. The start time for calculating the guarantee period is the start-up of the equipment.

The Supplier must, at his own expense and within the duration of an agreement with the customer, eliminate any defects in the supplied equipment, materials identified during the guarantee period. In the event of equipment failure, the Supplier has to send his representative to participate in drawing up a report according to settled defects, agree on the procedure and terms for their rectification. In this case, the warranty period is extended accordingly for the period of rectification.

## 9. REQUIREMENTS FOR REPAIRABILITY

Not required

## 10. MAINTENANCE REQUIREMENTS

### 10.1 Maintenance requirements

Spare parts supplied must be designed to operate continuously around the clock under specified conditions for specified service life.

### 10.2 Service requirements

Not required

## 11 ENVIRONMENTAL AND HEALTH REQUIREMENTS

The goods should not cause any damage to the environment.

## 12. REQUIREMENTS FOR ENERGY EFFICIENCY

The quality of the goods should ensure the possibility of its intended use without negative consequences.

## 13. SAFETY REQUIREMENTS

The goods should be safe during its operation, storage, and disposal

## 14. REQUIREMENTS FOR QUALITY AND CLASSIFICATION

The quality and completeness of the supplied goods should comply with the terms of the contract the requirements of the regulatory document. The quality of goods is certified by a certificate of quality and other documents provided by current law, confirming the quality of goods. In case of variations, the goods are returned to the Supplier at his own expense. Goods replacement should be fulfilled within 14 calendar days.

If the participant offers goods for delivery according to other regulatory and technical documentation (analog, equivalent); it is necessary to attach certified documents to the participant's application in the request for prices: a certificate/ bill of conformity, copy from the specifications for the goods, and any other certified documents at the option of the participant in the purchasing procedure, confirming the compliance of the technical characteristics of the goods intended for delivery of the



Customer's requirements.

15. REQUIREMENTS FOR QUANTITY, EQUIPMENT, PLACE AND TIME (PERIODICITY) OF DELIVERY

No	Name of product	Unit	Quantity
1	Repair Kit for control Valve for item. LV-22029	set	1
2	Repair Kit for control Valve for item. FCV-61101	set	1
3	Repair Kit for control Valve for item. FCV-61201	set	1

The scope of the present technical assignment requires the supply of spare parts for valves: item numbers and names of spare parts are indicated in paragraph 4.1 of the present technical assignment of the manufacturer's technical documentation (item numbers and names of spare parts are indicated in the attached technical assignment as per the manufacturer's technical documentation.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

16. REQUIREMENT FOR RELATED SERVICES FOR DELIVERY OF EQUIPMENT

Not required

17. REQUIREMENT FOR THE FORM OF SUBMITTED INFORMATION

Not required

18. LIST OF ACCEPTED ABBREVIATIONS

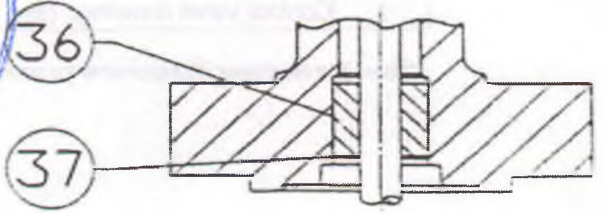
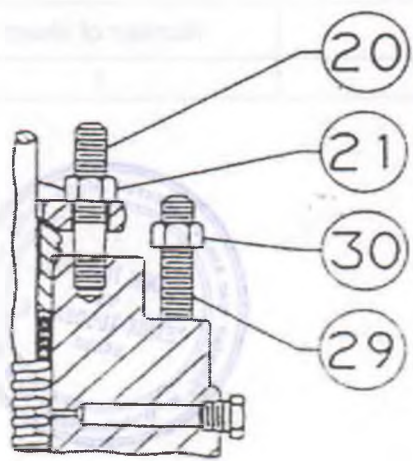
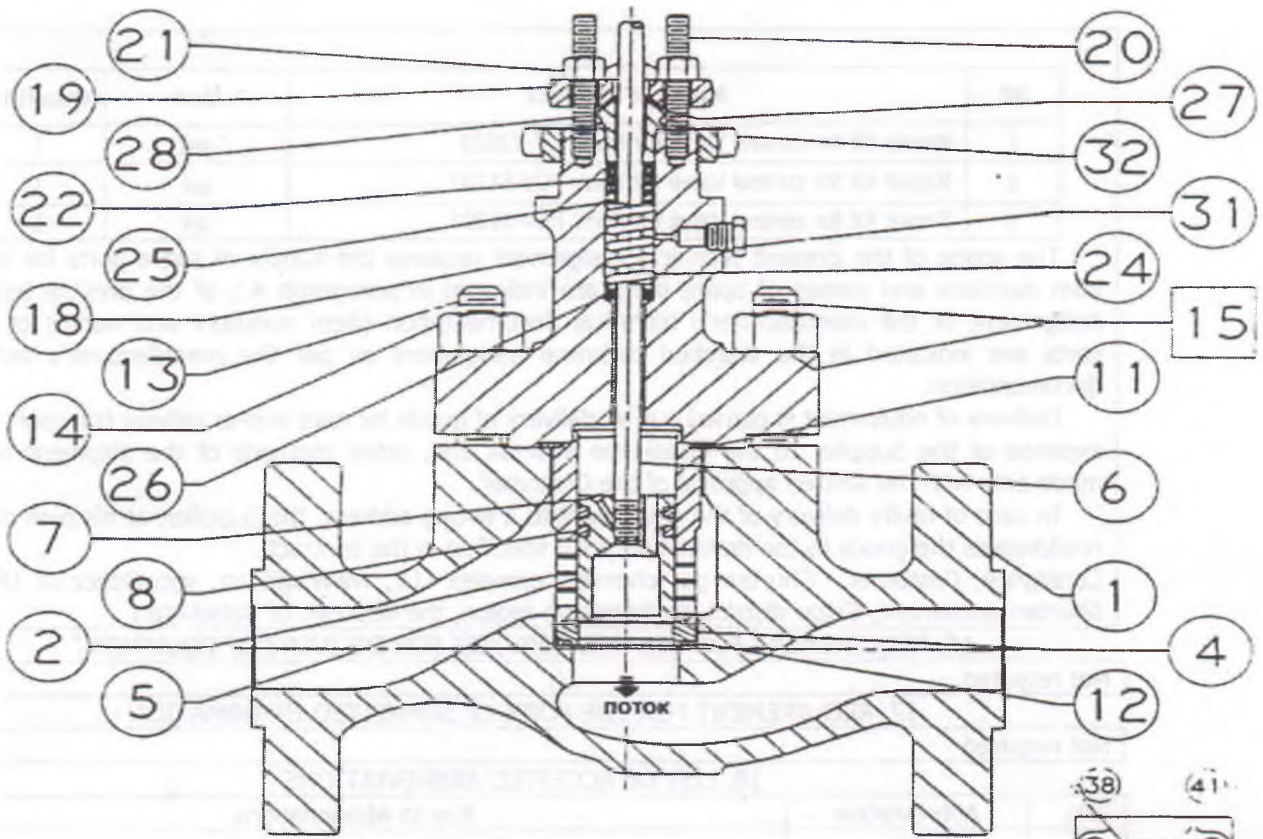
No.	Abbreviation	Key to Abbreviations
1	RD	Regulatory documentation
2	TA	Technical assignment

19. LIST OF APPENDICES

No	Name of product	Number of sheets
1	Control valve drawings (see Fig. 1).	1

\*Note: The developer is responsible for correct filling and blank items





- |                     |                           |                        |
|---------------------|---------------------------|------------------------|
| 1. BODY             | 13. Stud                  | 27. Top Cleaner.       |
| 2. Cage             | 14. Hexagonal nut         | 28. Grand box          |
| 4. Ring saddle      | 18. Cover                 | 29. Hairpin            |
| 5. Plunger          | 19. Flange of grundbucker | 30. Hexagon nut        |
| 6. Rod              | 20. Stud                  | 31. Pipe blanking      |
| 7. Pin              | 21. Hexagonal nut         | 32. Bugle lock nut     |
| 8. Spiral coiled    | 22. Seat ring             | 36. Guide bushing seal |
|                     | 24. Spring                | 37. Retaining ring     |
| 11. Laying of cover | 25. Special washer        |                        |
| 12. Gasket of seat  | 26. Seal Box Ring         |                        |

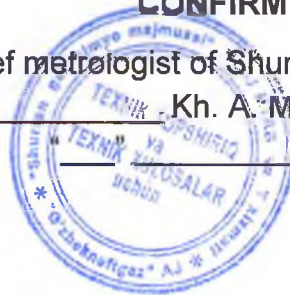


**CONFIRM**

Chief metrologist of Shurtan GCC LLC

Kh. A. Makhmudov

2021



**№ 074/ 007 – 1845 (eng)  
dd. 2021 y “18” Avgust**

**TECHNICAL ASSIGNMENT  
for purchasing Repair kit for control valve  
for the needs of Shurtan GCC LLC**

**SGCC - 2021**

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## 1. GENERAL INFORMATION

<b>1.1. Name</b>
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<b>1.2. Basis and purpose of purchasing goods</b>
Basis: Approved annual request for purchasing spare parts, materials, and equipment at the instrumentation and automation unit for 2022. Purpose: stable operation of existing control valves.
<b>1.3 Information about novelty (year of production/manufacture of goods)</b>
The supplied goods must be new, not previously used, and produced no earlier than 2020 and meet safety and quality standards according to the law of the Republic of Uzbekistan.
<b>1.4 FTP code and other international codes, if applicable</b>
The manufacturer of the goods should provide the FTP code or other international codes.

## 2. SCOPE OF APPLICATION

Existing control valves are used in technological processes, with ultra-high pressure steam applications. The valves are designed to seal the flow of the working medium on pipelines with elevated temperatures, high pressure and abrasive media. Since the valves are operated under very harsh conditions (duty cycle is over 8000 hours per year), frequent wear of the main internal valve structures is revealed
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## 3. OPERATING CONDITIONS

<b>3.1 Basic operating conditions</b>
Working site - indoors with forced ventilation; Ambient temperature range: from +5 to +55°C; Ambient relative humidity: from 5% to 80%; Valve parts are subject to normal wear and should therefore be periodically inspected and replaced as necessary. The periodicity of maintenance inspections depends on the severity of the operating condition
<b>3.2 Additional/special requirements for operation</b>
The valves are widely used, depending on actual temperatures, pressures and other operating conditions.

## 4. TECHNICAL REQUIREMENTS

<b>4.1. Basic technical requirements</b>																			
№	Name of product	Specifications	Unit	Quantity															
Technical parameters for the existing control valves																			
1	Repair Kit for control Valve for item. HV-21191	<b>Body model: CP Size: 1 1/2 "S.n: 152264131</b> Spherical Valve-Through Design, Tem- 150°C Design, Pressure Design-0.8 Mpa (G), Connected - Class 150, Input - RF Flange, Output - RF Flange, Material - CA6NM, Flow direction - Down. Guide Trim-6 Metal Saddle material - ALLOY K 500, Plunger material - M35-1 MONEL, Guiding - Top, Balance - Unbalanced, Tightness class - Class V, Hole size - 1.125 inch, Throughput - LINEAR, Stock material - MONEL, the Size a rod-0.500 inch.	set	1															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>GASKET, PTFE, COATED</td> <td>14B7829X032</td> <td>1 pc</td> </tr> <tr> <td>GASKET, SEAT RING</td> <td>18A0882X012</td> <td>1 pc</td> </tr> <tr> <td>SEAT RING RETAINER</td> <td>24B7812X032</td> <td>1 pc</td> </tr> <tr> <td>SEAT RING</td> <td>24B7856X042</td> <td>1 pc</td> </tr> <tr> <td>PLUG/STEM, LINEAR</td> <td>24B7881X032</td> <td>1 pc</td> </tr> </table>	GASKET, PTFE, COATED	14B7829X032	1 pc	GASKET, SEAT RING	18A0882X012	1 pc	SEAT RING RETAINER	24B7812X032	1 pc	SEAT RING	24B7856X042	1 pc	PLUG/STEM, LINEAR	24B7881X032	1 pc		
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PLUG/STEM, LINEAR	24B7881X032	1 pc																	



2	Repair Kit for control Valve for item. HV-22154	<b>Body model: CP Size: 2 "</b> S.n: 15239585 Spherical Valve-Through Design, Tem- 300C Design, Pressure Design-0.76 Mpa(G), Connected - Class 150, Input - RF Flange, Output - RF Flange, Material - CF3M (316L), Flow direction - Down of the Guide of Trim-1 Metal the Saddle material - 316L SST, the Plunger material - 316L SST, the Guide - Top, Balance - Unbalanced, a tightness Class - Class V, the opening Size - 1.500 inch, Throughput characteristic - LINEAR, the Rod material - 316L SST, the Size a rod-0.500 inch.	set	1																	
		<table border="1"> <tr> <td>GASKET, SPIRAL WOUND</td> <td>14B7905X012</td> <td>1 pc</td> </tr> <tr> <td>PACKING BOX RING</td> <td>17B7068X012</td> <td>1 pc</td> </tr> <tr> <td>GASKET</td> <td>18A0900X022</td> <td>1 pc</td> </tr> <tr> <td>SEAT RING RETAINER</td> <td>24B7814X012</td> <td>1 pc</td> </tr> <tr> <td>SEAT RING</td> <td>24B7822X012</td> <td>1 pc</td> </tr> <tr> <td>PLUG/STEM, LINEAR</td> <td>27B7049X012</td> <td>1 pc</td> </tr> <tr> <td>SPACER</td> <td>27B7078X012</td> <td>1 pc</td> </tr> </table>			GASKET, SPIRAL WOUND	14B7905X012	1 pc	PACKING BOX RING	17B7068X012	1 pc	GASKET	18A0900X022	1 pc	SEAT RING RETAINER	24B7814X012	1 pc	SEAT RING	24B7822X012	1 pc	PLUG/STEM, LINEAR	27B7049X012
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**4.2 Main technical, economic and operating characteristics**

Not required

**4.3 Reliability requirements**

The average life of spare parts per year, for the operation of the corrosive environments, the service life depends on the properties of the corrosive environment, operating conditions, and materials used.

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See technical data in item 4.1

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Equipment must be labeled in Russian and should be clearly indicated. The manufacturer, batch number, and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment.

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Installation, commissioning and operation documentation in Russian or English;

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The goods must be accompanied by the following documentation:

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- certificate of origin of the country of the goods indicating the number and date of the invoice;
- packing list;
- certificate of quality of the goods issued by the manufacturer;
- safety data sheet

#### 5.3 Requirements for insurance of goods

The goods must be insured. The equipment supplied must be designed to operate continuously around the clock under specified conditions for a specified service life.

### 6. TRANSPORTATION REQUIREMENTS

After the manufacture of spare parts, pack in a box and protect against mechanical damage.

The goods should be shipped in the manufacturer standard packing (sealed, tight, and duly packaged) ensuring its full safety from all kinds of damage during long-term storage and transportation of products, taking into account several overloads in transit.

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Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

### 7. REQUIREMENTS FOR STORAGE

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## 8. REQUIREMENTS FOR SCOPE AND-OR GUARANTEE PERIOD

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## 9. REQUIREMENTS FOR REPAIRABILITY

Not required

## 10. MAINTENANCE REQUIREMENTS

### 10.1 Maintenance requirements

Spare parts supplied must be designed to operate continuously around the clock under specified conditions for specified service life.

### 10.2 Service requirements

Not required

## 11 ENVIRONMENTAL AND HEALTH REQUIREMENTS

The goods should not cause any damage to the environment.

## 12. REQUIREMENTS FOR ENERGY EFFICIENCY

The quality of the goods should ensure the possibility of its intended use without negative consequences.

## 13. SAFETY REQUIREMENTS

The goods should be safe during its operation, storage, and disposal

## 14. REQUIREMENTS FOR QUALITY AND CLASSIFICATION

The quality and completeness of the supplied goods should comply with the terms of the contract the requirements of the regulatory document. The quality of goods is certified by a certificate of quality and other documents provided by current law, confirming the quality of goods. In case of variations, the goods are returned to the Supplier at his own expense. Goods replacement should be fulfilled within 14 calendar days.

If the participant offers goods for delivery according to other regulatory and technical documentation (analog, equivalent); it is necessary to attach certified documents to the participant's application in the request for prices: a certificate/ bill of conformity, copy from the specifications for the goods, and any other certified documents at the option of the participant in the purchasing procedure, confirming the compliance of the technical characteristics of the goods intended for delivery of the Customer's requirements.

## 15. REQUIREMENTS FOR QUANTITY, EQUIPMENT, PLACE AND TIME (PERIODICITY) OF DELIVERY

No	Name of product	Unit	Quantity
1	Repair Kit for control Valve for item. HV-21191	set	1
2	Repair Kit for control Valve for item. HV-22154	set	1

The scope of the present technical assignment requires the supply of spare parts for valves: item numbers and names of spare parts are indicated in paragraph 4.1 of the present technical assignment of the manufacturer's technical documentation (item numbers and names of spare parts are indicated in the attached technical assignment as per the manufacturer's technical documentation.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

16. REQUIREMENT FOR RELATED SERVICES FOR DELIVERY OF EQUIPMENT

Not required

17. REQUIREMENT FOR THE FORM OF SUBMITTED INFORMATION

Not required

18. LIST OF ACCEPTED ABBREVIATIONS

No.	Abbreviation	Key to Abbreviations
1	RD	Regulatory documentation
2	TA	Technical assignment

19. LIST OF APPENDICES

Nº	Name of product	Number of sheets
1	Control valve drawings (see Fig. 1).	1

\*Note: The developer is responsible for correct filling and blank items



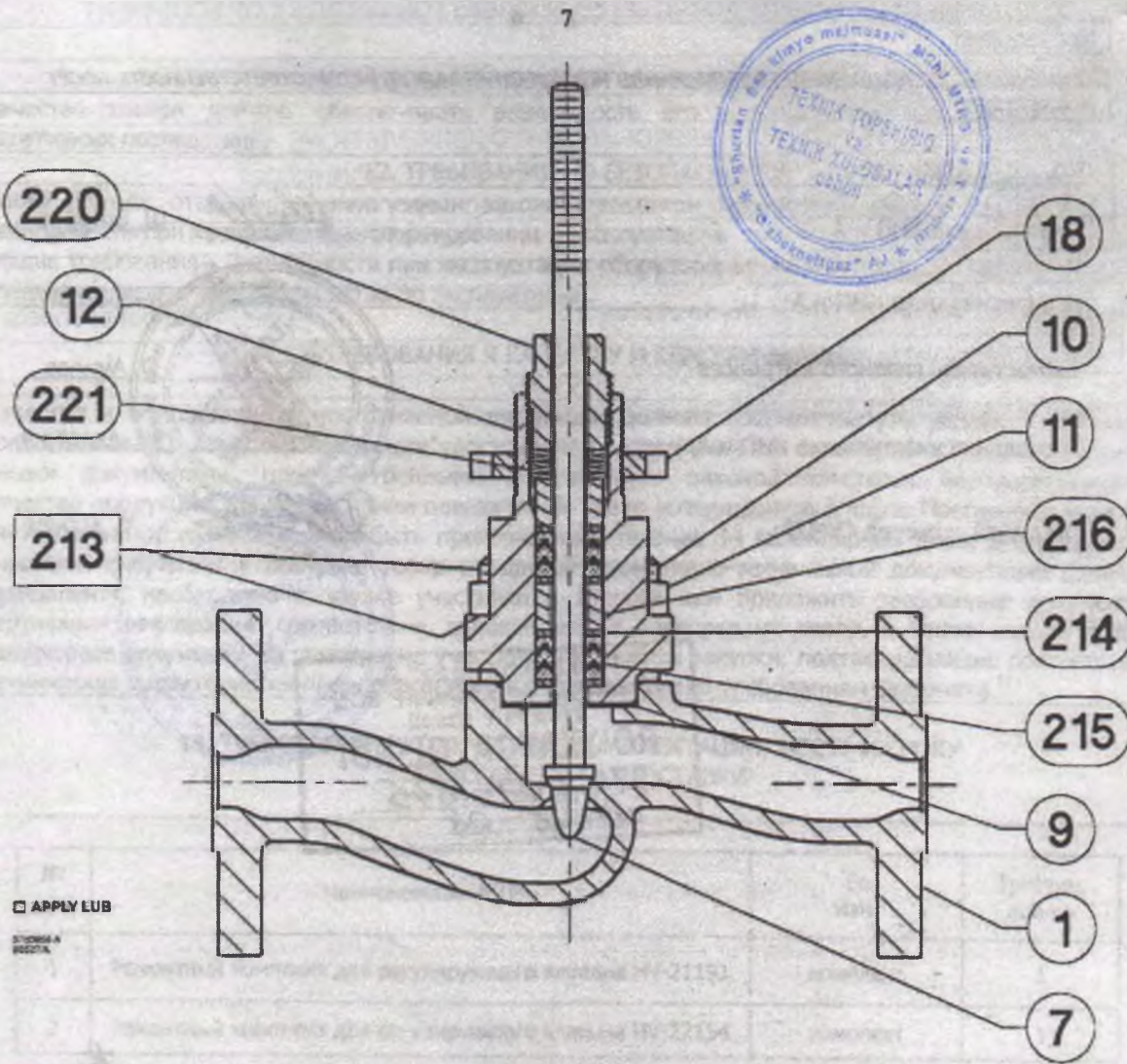


Figure 4. Design GP Control Valve Assembly (0.5 and 0.75 Inch)

*Handwritten signature*

1 Valve Body

If you need a valve body as a replacement part, order by valve size, serial number, and desired material 7" Valve Plug/Stem, S31603 0.5 Inch Valve Equal Percentage, 0.375 Inch Port, 0.5 Inch Travel Full Capacity

642X012	27B3	
First Reduction	27B3644X012	
Second Reduction	27B3646X012	
Linear, 0.375 Inch Port, 0.5 Inch Travel Full Capacity		216
	27B3643X012	220
First Reduction	27B3645X012	221
Second Reduction	27B3647X012	
0.75 Inch Valve Equal Percentage, 0.5625 Inch Port, 0.5 Inch Travel Full Capacity	27B3648X01	
2		
First Reduction	27B3650X012	
Second Reduction	27B3652X012	
Linear, 0.5625 Inch Port, 0.5 Inch Travel Full Capacity		
	27B3649X012	
First Reduction	27B3651X012	
Second Reduction	27B3653X012	

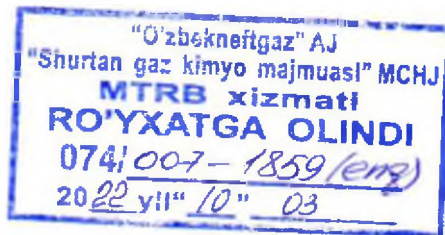
Key	Description	Part Number
	Bonnet Gasket Graphite	
	Laminar/S31600 Stud Bolt	17B3641X012
	Hex Nut	
	Bonnet, untapped Nameplate	
	Drive Screw (for nameplate)	
	Yoke Locknut Lead Seal/Wire	
	Lubricant Washer, 4 req'd	
	Packing Set	
	ENVIRO-SEAL PTFE (2 req'd)	
	Carbon PTFE Packing Spacer	
	Packing Nut Belleville Springs	17B3635X012

"O'zbekneftgaz" A.J  
 "Shurtan gaz kimyo majmuasi" MOHIJ  
 MTRB va T. xizmati  
 RO'YXATGA OLINDI  
 074/0.07-1845  
 20.01.18.08



«APPROVED»

Chief metrologist of  
«Shurtan GCC», LLC  
Kh. A. Makhmudov



**TECHNICAL ASSIGNMENT**  
for purchasing of the repair kit  
for (Actuator) pressure control valve  
for the needs of «Shurtan GCC», LLC

## 1. GENERAL INFORMATION

### 1.1. Name

#### The repair kit for (Actuator) pressure control valve

### 1.2. Basis and purpose of purchasing goods

Basis: Approved annual request for 2021.

Purpose: To provide stable operation of existing pressure-reducing valve.

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

The supplied goods shall not be previously used, and produced no earlier than 2020.

### 1.4 Foreign Economic Activity Commodity Nomenclature (HS code) and other international codes if applicable.

The manufacturer of goods shall provide with the Foreign Economy Activity Commodity Nomenclature code / (HS code) or other international codes.

## 2. SCOPE OF USE

The for (Actuator) pressure control valve is used in processes using ultra-high pressure steam. As valves are operated in very severe conditions at a temperature of  $-50\text{ }^{\circ}\text{C}$  of  $\pm$  of  $+100\text{ }^{\circ}\text{C}$  (the running cycle is over 8000 hours a year) and in the investigation the frequent wear of the main internal parts of the valve is detected.

The valve parts are subject to normal wear and tear and therefore require periodic inspection and replacement if necessary. The frequency of inspection and replacement of parts depends on the rigidity of the operating conditions. Since companies take special measures to meet all production requirements (heat treatment, dimensional tolerances, etc.), therefore, only parts manufactured and supplied by the company are used when replacing parts.

## 3. OPERATING CONDITIONS

Ambient temperature range:  $-30$  to  $+85\text{ }^{\circ}\text{C}$ ;

Relative humidity of ambient air: from 5% to 95%;

## 4. TECHNICAL REQUIREMENTS

### 4.1 Basic technical requirements

The list of the repair kit for (Actuator) pressure control valve is given below:

No	Item name	Name and specification	Unit	Required quantity		
1	The repair kit for (Actuator) pressure control valve PV-24531	Actuator: Type/Size: 585R Dual/100, Spring Piston, Travel: 2inch, Push Down to; Close Fails valve; Close.	set	1		
		7 Piston O-RING			1D4520X0032	6 pc
		10 Piston Steam O-RING			1H862706992	3 pc
		11 Piston Steam BEARING			10B7632X012	3 pc





#### 4.2 Requirements for reliability

The average service life of spare parts is two years when using aggressive media, the average service life of which depends on the property of the aggressive environment, operating conditions and materials used. The supplied equipment shall be designed for continuous operation, 24 hours a day, 7 days a week under specified conditions during the specified service life.

#### 4.3 Requirements for design, mounting and technical requirements.

During replacing of the details it is necessary to use only the details made and delivered by the company. Numbers of positions and the name of spare parts are specified according to the technical documentation of the manufacturer attached to the present technical assignment.

#### 4.4 Requirements for materials.

See the specifications in the section 4.1.

#### 4.5 Requirements for marking.

Marking of the equipment shall be made in Russian (or in English) language, and have accurate designations. Also the manufacturer, the batch number and date of production shall be specified. Marking shall remain on during all service life of the supplied equipment.

#### 4.6 Requirements for the sizes and packaging

Delivery of goods shall be carried out in the tare/package. The tare and package shall have presentation, ensure safety of products against mechanical damage during loading and unloading operations during transportation and also at long storage, (as per the manufacturer requirement). Shall provide protection against mechanical damage during storage, transportation and packing.

### 5. REQUIREMENTS AS PER RULES OF DELIVERY AND ACCEPTANCE

#### 5.1 Procedure of delivery and acceptance

The goods shall be accepted after incoming control and drawing up the act according to the contract.

The customer shall carry out of acceptance of goods by quantity, quality and completeness of batch, and external signs of safety of goods (presence of mechanical damages, visible deformation of separate blocks and details of goods and other similar apparent signs of damage according to transport and accompanying documents, certificates of quality of manufacturer.

Hereby, the parties agree that the visual inspection of the goods performed by the representative of the Customer shall be absolute and final for the parties to determine compliance as per quantity, completeness and external signs of preservation of the goods during its transportation.

The products shall have the certificates of conformity and protocols of certified tests confirming the stated characteristics, to be accompanied by documentation for installation, adjustment and operation.

All accompanying documentation shall be prepared made in the Russian or English languages and to be handed over to the Customer together with the delivered products.

The supplied equipment shall be designed for operation in the continuous mode round the clock at the set conditions during an established service life.



Marking of the equipment shall be carried out in the Russian and English languages and have accurate designations. Also the manufacturer, the batch number and date of production shall be specified.

Marking shall remain on all service life of the supplied equipment.

The options of technical parameters and characteristics of the equipment and materials offered by the participant not specified in TA, are coordinated in addition.

Upon acceptance of the goods from the carrier, the Customer (consignee) shall check the conformity of the goods with the information specified in the contract, specifications or additional agreements to it, as well as in transport, accompanying documents, quality certificates of the manufacturer.

If upon acceptance of the goods after their receipt from the carrier there is a non-conformity of the goods by quality/quantity, the Customer (consignee) shall suspend the acceptance of the goods, take measures to ensure the safety of the goods and prevent mixing with other homogeneous goods and notify the Seller in writing within 5 (five) working days from the moment of detection of defects.

The Seller shall send to the Customer (consignee) not later than 10 (ten) working days from the moment of receipt of the notification the response on participation of its representative in further acceptance of the goods. The Seller's representative shall appear to participate in the acceptance of the goods within a reasonable period not exceeding 20 (twenty) calendar days from the date of receipt of the notice.

5.2 Requirements for handing-over to the customer the technical and other documents during supply of equipment.

The Supplier shall provide with the following documents confirming compliance of the products with the established requirements:

Certificates (declarations) of compliance with GOST and safety requirements;

Specification of main components of equipment with indication of manufacturers, as well as attachment of conformity certificates for them;

Documentation for installation, adjustment and operation in Russian and English;

All supplied equipment is subject to incoming inspection with the participant's representative during receiving of the equipment at the warehouse.

The goods shall be accompanied by the following documentation:

- the certificate of conformity of the goods;
- invoice (invoice) of the Seller with description of the goods, indication of the quantity, price of the unit of goods and total amount;
- consignment note issued in the name of the consignee, indicating the name of the Customer, the number and dates of signing of the existing contract;
- Certificate of origin of the country of goods indicating the invoice number and date;
- packing list;
- Certificate of quality of goods issued by the manufacturer;



- product safety passport.

### 5.3 Equipment Insurance Requirements

Equipment insurance is carried out at the expense of the supplier.

## 6. TRANSPORTATION REQUIREMENTS

Conditions of transportation, storage, loading and unloading shall ensure safety of the product against mechanical damages. The goods must be shipped in the manufacturer's export standard package, ensuring its complete safety from all kinds of damage during long-term storage and transportation of products, taking into account several transshipments in transit.

## 7. STORAGE REQUIREMENTS

During storage of the spare parts, it is necessary to avoid harmful effects, such as high temperature and aggressive environment and provide with protection against mechanical damage.

## 8. REQUIREMENTS FOR THE SCOPE AND/OR PERIOD OF GUARANTEES

Warranty period for supplied materials and equipment shall be in accordance with the manufacturer's passport, but not less than 12 months. The beginning time of the warranty period is from the moment of equipment commissioning.

The Participant shall at his own expense and at the time agreed with the Customer, eliminate any defects in the supplied equipment, materials identified during the warranty period.

In case of equipment failure, the participant is obliged to send his representative for participation in drawing up an act with fixing of the defects, for agreeing on the procedure and terms for their elimination not later than 5 days from the date of receipt of the customer's written notice. The warranty period in this case is extended accordingly for the period of elimination of defects.

## 9. MAINTENANCE REQUIREMENTS

The supplied spare parts shall be designed for continuous operation, 24 hours a day under specified conditions during the specified service life.

## 10. ENVIRONMENTAL AND SANITARY REQUIREMENTS

The quality of the product shall ensure that it can be used for its intended purpose without negative consequences:

- the goods shall be safe during their operation;
- the goods shall not cause any damage to the environment.
- shall fully comply with the requirements of the environmental standard ISO-14001.

## 11. ENERGY EFFICIENCY REQUIREMENTS

The quality of the product shall ensure that it can be used for its intended purpose without negative consequences.

## 12. SAFETY REQUIREMENTS

The goods shall be safe during their operation, storage and disposal.



### 13. QUALITY AND CLASSIFICATION REQUIREMENTS

The quality and completeness of the delivered products shall comply with the terms of the contract, the requirements of the ND. The quality of the products is certified by a certificate (passport) of quality, as well as other documents provided by the current legislation confirming the quality of the products. In case of non-conformity of the goods' specifications, the goods shall be returned to the Supplier's address and at the Supplier's expense. Product replacement shall be performed within 14 calendar days. If the participant offers the goods for delivery according to other regulatory and technical documentation (analogue, equivalent), it is necessary to attach certified documents to the participant's application for prices: a certificate/declaration of conformity, the writing out from the passport of a technical device for the goods, as well as any other certified documents at the discretion of the participant in the procurement procedure confirming the compliance with the technical characteristics of the goods intended for delivery with the requirements of the Customer.

### 14. REQUIREMENTS FOR QUANTITY, COMPLETING, PLACE AND DELIVERY TIME (PERIODICITY)

The scope of this TA requires the supply of the repair kit for the valve of the following name and number, item numbers and names of spare parts are specified in accordance with section 4.1 of this TA, the manufacturer's technical documentation (item numbers and names of spare parts are specified in accordance with the technical documentation of the manufacturer attached to this specification. The equipment shall be delivered at the Supplier's expense by means of shipment of products by road and/or air transport to the consignee's address, other methods of shipment may be carried out only with written approval of the Customer. The delivery time of the goods is 2 months (60 calendar days).

In case of erroneous shipment of equipment not to the address, the Supplier shall, at its own expense, forward the products to the destination specified in the contract.

Consignee: Customer - "Shurtan GCC", LLC. The Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300, www.sgcc.uz, sgcc@sgcc.uz

### 15. LIST OF ACCEPTED ABBREVIATIONS

No	ABBREVIATIONS	
1	TA	Technical Assignment
2	ND	Normative Documentation

### 16. LIST OF APPENDICES

No	Name	Number of sheets
1	pressure control valve drawings with spare part list.	2

*\*Note: The developer is responsible for correct filling-in and blank items.*

**Developed by:**

**Foreman of The instrumentation and automation shop:**

*W. Botirov* Sh. Botirov

**Agreed with:**

**Deputy Chief Metrologist:**

*O. Achilov* O. Achilov

**Chief of The instrumentation and automation shop:**

*Z. Jalilov* Z. Jalilov

**Chief of the area of The instrumentation and automation shop:**

*Sh. Allayorov* Sh. Allayorov

**Lead engineer of The Material and**

**technical resource management service:**

*M. Hobiev* M. Hobiev





# Type 585 and 585R

the piston stem. If used per table 4 or 5, center the larger bias spring (key 9) around the smaller bias spring.

14. Install the piston O-ring (key 7), if it was removed from the piston, and the bottom cylinder O-ring (key 7), if it was removed from the yoke (key 1). Apply Lubriplate MAG-1 lubricant (key 32) or equivalent to the wall of the cylinder (key 2) and carefully slide the cylinder over the piston O-ring. Square the cylinder in place around the bottom cylinder O-ring.

15. Install the top cylinder O-ring (key 7) onto the cylinder cover (key 3). Put the cylinder cover squarely onto the cylinder, lining up the cover holes with the yoke holes. Be sure that the pressure connection in the cylinder cover is located on the same side as the pressure connection in the yoke.

### Note

**When placing the cylinder cover onto the cylinder and torquing down the cylinder cap screws or nuts, be sure to keep the cylinder cover square and aligned with the top of the yoke.**

16. Lubricate the cylinder studs (key 4) with Lubriplate MAG-1 lubricant (key 32) or equivalent. Install the cylinder stud nuts (key 34) while alternately tightening each cylinder stud nut to a torque of 570 N•m (420 lbf•ft). Then install the lifting eyes (key 70) diagonally across from each other on two of the cylinder stud nuts until secure against the stud nuts.

17. If the actuator will be mounted on a valve, perform the appropriate actuator mounting procedure. Otherwise, for actuators without springs, fasten the anti-rotator arm (key 75) to the stem connector assembly (key 15) if the anti-rotator arm was removed. Then, install the stem connector assembly and tighten its two cap screws. For an actuator without springs, make certain the end of the anti-rotator arm (key 75) fits into the groove of the anti-rotator bracket (key 74). Install the stem connector nuts (key 16), and tighten these nuts against the stem connector assembly.

## Parts Ordering

When corresponding with your Fisher sales office about this equipment, refer to the serial number found on the actuator nameplate (key 28, figures 3 through 5). Also, specify the complete 11-character part number from the following parts list when ordering replacement parts.

## Parts List

### Common Parts for Type 585 and 585R Size 100 Actuators (figures 3 through 5)

Key	Description	Part Number
1	Yoke, cast iron	
2	Cylinder, ENC steel	
3	Cylinder Cover cast iron	
4	Cylinder Stud	
5	Piston, aluminum	
7	Piston O-Ring, nitrile (3 req'd)	1D4520X0032
8	Bias Spring, steel (see tables 3 through 4 for use) Red color code	
9	Bias Spring, steel (see tables 3 through 4 for use) White color code	
10*	Piston Stem O-Ring, nitrile	1H662706992
11*	Piston Stem Bearing, nylon	10B7632X012
12	Piston Stem, HT ENC 416 stainless steel	
13	Stem Bracket Assembly, pl steel	
14	Stem Bracket Retainer, pl carbon steel	
15	Stem Connector Assembly, zn pl steel	
16	Stem Connector Nut, zn pl steel (2 req'd)	
18	Back Yoke Cover, pl steel (used only when accessory not mounted on actuator)	
19	Piston Cap Screw, pl steel	
20	Front Yoke Cover, pl steel	
21	Travel Indicator Scale, 18-8 stainless steel 19 mm (3/4-inch) stem travel 29 mm (1-1/8 inch) stem travel 38 mm (1-1/2 inch) stem travel 51 mm (2-inch) stem travel 64 mm (2-1/2 inch) stem travel 76 mm (3-inch) stem travel 89 mm (3-1/2 inch) stem travel 102 mm (4-inch) stem travel	
22	Yoke Cover Screw, stainless steel	
23	Travel Indicator Scale Screw	
24	Blanking Plate (not used on actuator w/positioner), Zn pl steel	
25	Blanking Plate Screw (not used on actuator w/positioner), stainless steel (4 req'd)	
27	Travel Stop Spacer 19 mm (3/4-inch) stem travel 29 mm (1-1/8 inch) stem travel 38 mm (1-1/2 inch) stem travel 51 mm (2-inch) stem travel 64 mm (2-1/2 inch) stem travel 76 mm (3-inch) stem travel 89 mm (3-1/2 inch) stem travel	
28	Nameplate, stainless steel	
29	Drive Screw, stainless steel (6 req'd)	
31	Warning Tag, stainless steel	
32	Lubriplate MAG-1 Lubricant or equivalent	
34	Cylinder Stud Nut (4 req'd)	
51	Stem Bracket Retainer Set Screw, brass pl steel	
69	Loctite No. 242 Sealant or equivalent (not furnished with actuator)	
70	Lifting Eye, pl carbon steel (2 req'd)	
71	Stem Connector Spacer, Delrin (2 req'd)	
72	Stem Connector Washer, pl steel (3 req'd)	
73	Piston Washer, heat treated 416 stainless steel	
74	Anti-rotator Bracket, zn pl steel	
75	Anti-rotator Arm, zn pl steel	
76	Cap Screw, steel	
77	Spring Stop, ENC steel	

\*Recommended spare parts

# Type 585 and 585R

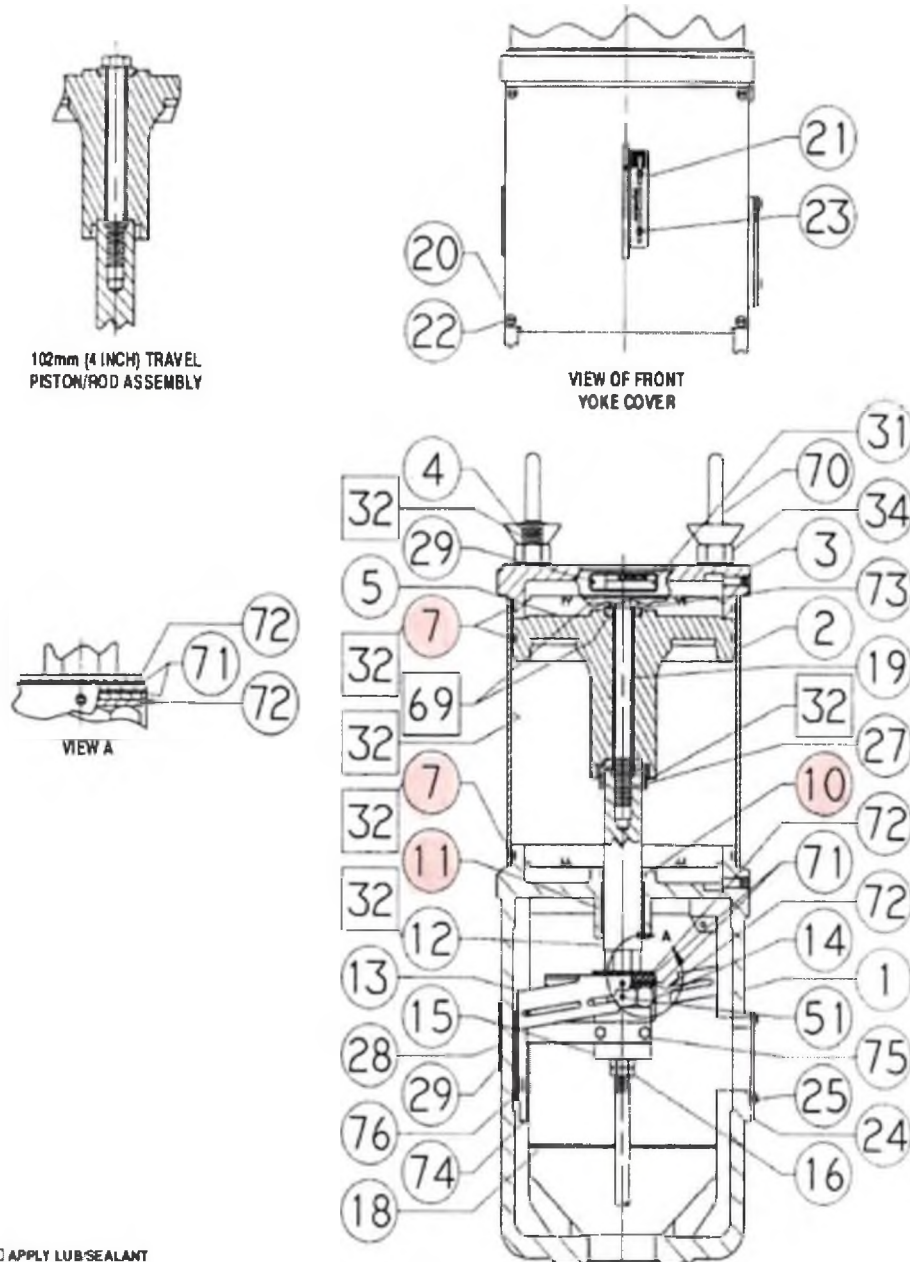


Figure 5. Type 585 Size 100 Actuator without Springs and With Anti-Rotator Arm and Bracket

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 Cernay 68700 France  
 Sao Paulo 05424 Brazil  
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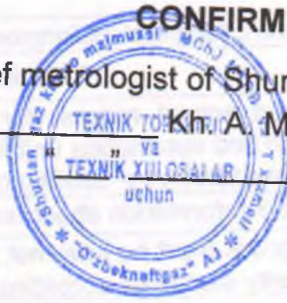


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CONFIRM

Chief metrologist of Shurtan GCC LLC



Kh. A. Makhmudov

2021

№ 074/ 007 – 1860 (eng)  
dd. 2021 y “18” Avgust

TEKNIKA VA TEXNIQA

TEKNIKA VA TEXNIQA

TEKNIKA VA TEXNIQA

**TECHNICAL ASSIGNMENT  
for purchasing Repair Kit for control Valve  
for the needs of Shurtan GCC LLC**

TEKNIKA VA TEXNIQA

TEKNIKA VA TEXNIQA

№	QISMI	TEKNIKA VA TEXNIQA	TEKNIKA VA TEXNIQA
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1	1.1	1.1.5	1.1.5.1
1	1.1	1.1.6	1.1.6.1
1	1.1	1.1.7	1.1.7.1
1	1.1	1.1.8	1.1.8.1
1	1.1	1.1.9	1.1.9.1
1	1.1	1.1.10	1.1.10.1
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1	1.1	1.1.67	1.1.67.1
1	1.1	1.1.68	1.1.68.1
1	1.1	1.1.69	1.1.69.1
1	1.1	1.1.70	1.1.70.1
1	1.1	1.1.71	1.1.71.1
1	1.1	1.1.72	1.1.72.1
1	1.1	1.1.73	1.1.73.1
1	1.1	1.1.74	1.1.74.1
1	1.1	1.1.75	1.1.75.1
1	1.1	1.1.76	1.1.76.1
1	1.1	1.1.77	1.1.77.1
1	1.1	1.1.78	1.1.78.1
1	1.1	1.1.79	1.1.79.1
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1	1.1	1.1.81	1.1.81.1
1	1.1	1.1.82	1.1.82.1
1	1.1	1.1.83	1.1.83.1
1	1.1	1.1.84	1.1.84.1
1	1.1	1.1.85	1.1.85.1
1	1.1	1.1.86	1.1.86.1
1	1.1	1.1.87	1.1.87.1
1	1.1	1.1.88	1.1.88.1
1	1.1	1.1.89	1.1.89.1
1	1.1	1.1.90	1.1.90.1
1	1.1	1.1.91	1.1.91.1
1	1.1	1.1.92	1.1.92.1
1	1.1	1.1.93	1.1.93.1
1	1.1	1.1.94	1.1.94.1
1	1.1	1.1.95	1.1.95.1
1	1.1	1.1.96	1.1.96.1
1	1.1	1.1.97	1.1.97.1
1	1.1	1.1.98	1.1.98.1
1	1.1	1.1.99	1.1.99.1
1	1.1	1.1.100	1.1.100.1

SGCC - 2021



copy correct  
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## 1. GENERAL INFORMATION

<b>1.1. Name</b>
The present technical assignment is developed for purchasing repair kit for control valve
<b>1.2. Basis and purpose of purchasing goods</b>
Basis: Approved annual request for purchasing spare parts, materials, and equipment at the instrumentation and automation unit for 2022. Purpose: stable operation of existing control valves.
<b>1.3 Information about novelty (year of production/manufacture of goods)</b>
The supplied goods must be new, not previously used, and produced no earlier than 2020 and meet safety and quality standards according to the law of the Republic of Uzbekistan.
<b>1.4 FTP code and other international codes, if applicable</b>
The manufacturer of the goods should provide the FTP code or other international codes.

## 2. SCOPE OF APPLICATION

Existing control valves are used in technological processes, with ultra-high pressure steam applications. The valves are designed to seal the flow of the working medium on pipelines with elevated temperatures, high pressure and abrasive media. Since the valves are operated under very harsh conditions (duty cycle is over 8000 hours per year), frequent wear of the main internal valve structures is revealed

## 3. OPERATING CONDITIONS

<b>3.1 Basic operating conditions</b>
Working site - indoors with forced ventilation; Ambient temperature range: from +5 to +55°C; Ambient relative humidity: from 5% to 80%; Valve parts are subject to normal wear and should therefore be periodically inspected and replaced as necessary. The periodicity of maintenance inspections depends on the severity of the operating condition
<b>3.2 Additional/special requirements for operation</b>
The valves are widely used, depending on actual temperatures, pressures and other operating conditions.

## 4. TECHNICAL REQUIREMENTS

### 4.1. Basic technical requirements

№	Name of product	Specifications	Unit	Quantity																								
Technical parameters for the existing control valves																												
1	Repair Kit for control Valve for item. PV-17004	<p>BODY model: EWT. Size-12X6 inch, Spherical Type Flow Valve Design, Design Tem- 58.2°C, Design poppy. pressure-3.9 bar, Connected - Class 150, Input - RF Flange Output - RF Flange, Design Valve Materials - CF8M SST Cast, Pass - Holes, Flow Direction - Up. Covers of type - Standard. Guide Trima- MicroForm NACE, Hole Size - 7 inch, Throughput - W I/Linear, Balance - Unbalanced, Pass-Through - 953Cv, Plunger Material -316 SST, Saddle material - 316 SST, Cell material - 316SST/ENC, Stock material - Nitronic 50, Guide - Trim 85. Medium - Acid Gas. Flow rate (Os) - 25000 ka/h.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td>GASKET SET.OVER 450F</td> <td>RGASKETX412</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>KIT,REPAIR</td> <td>RPACKX0002</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>RING,BACK-UP</td> <td>1V660005292</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>SEAL RING</td> <td>1V660105092</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>CAGE,WHISPER</td> <td>28A4350X012</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>PIN,GROOVE,FLAT END</td> <td>1V326035072</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>PLUG,BAL</td> <td>11A2622X022</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td>SEAT RING</td> <td>2V9406X002</td> <td style="text-align: center;">1 pc</td> </tr> </table>	GASKET SET.OVER 450F	RGASKETX412	1 pc	KIT,REPAIR	RPACKX0002	1 pc	RING,BACK-UP	1V660005292	1 pc	SEAL RING	1V660105092	1 pc	CAGE,WHISPER	28A4350X012	1 pc	PIN,GROOVE,FLAT END	1V326035072	1 pc	PLUG,BAL	11A2622X022	1 pc	SEAT RING	2V9406X002	1 pc	set	1
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PLUG,BAL	11A2622X022	1 pc																										
SEAT RING	2V9406X002	1 pc																										



*[Handwritten signature]*

<b>4.2 Main technical, economic and operating characteristics</b>
Not required
<b>4.3 Reliability requirements</b>
The average life of spare parts per year, for the operation of the corrosive environments, the service life depends on the properties of the corrosive environment, operating conditions, and materials used.
<b>4.4 Design requirements, installation, and technical requirements</b>
For replacing parts, it is necessary to use only parts produced and supplied by the company item numbers and names of spare parts are indicated per the manufacturer's technical documentation attached to the present technical assignment
<b>4.5 Requirements for materials</b>
See technical data in item 4.1
<b>4.6 Requirements for stability and parameters exposure to environmental factors</b>
At exposed to environmental factors, avoid harmful effects such as high temperature and corrosive environment. Protect against mechanical damage during storage, transportation, and packing.
<b>4.7 Requirements for power supply</b>
Not required
<b>4.8 Requirements for instrumentation and automation</b>
Not required
<b>4.9 Requirements for components, initial and operational materials</b>
see technical data in item 4.1
<b>4.10 Requirements for labeling</b>
Equipment must be labeled in Russian and should be clearly indicated. The manufacturer, batch number, and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment.
<b>4.11 Requirements to sizes and packing</b>
The goods are delivered in containers/packing. Containers and packing should have a presentation to ensure the safety of goods from mechanical damage during loading and unloading, during transportation, in addition to long-term storage (as per the manufacturer's requirements). Protect against mechanical damage during storage, transportation, and packing.
<b>4.12 Requirements for spare parts and wearing parts</b>
Not required

## 5. REQUIREMENTS TO RULES FOR DELIVERY AND ACCEPTANCE

<b>5.1 Order of delivery and acceptance</b>
<p>The goods should be accepted after incoming inspection and drawing up a report following the contract.</p> <p>The Customer accepts the goods according to the quantity, quality, complete of the lot, and the external signs of the safety of the goods (mechanical damage, visible deformation, and other similar damage) following the transport and enclosed documents, the manufacturer's quality certificates. Being parties agree that the visual inspection of the goods carried out by the Customer representative must be absolute and final for the parties to determine the conformity according to quantity, complete and external signs of goods safety during transportation.</p> <p>Goods should have certificates of conformity and certification test reports confirming the applied for characteristics, accompanied by documentation for installation, commissioning and operation.</p> <p>All accompanying documentation should be drawn up in Russian or English and handed over to the Customer along with the supplied goods. The equipment supplied should be designed to operate continuously around the clock under specified conditions for specified service life. Equipment must be labeled in Russian and clearly indicated. The manufacturer, batch number and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment. Versions of technical parameters and characteristics of equipment and materials offered by the Bidder that are not specified in the technical assignment are agreed additionally.</p> <p>At receiving the goods from the carrier, the Customer (consignee) should check the conformity of the goods with the information specified in the contract, specifications, or additional agreements to it, as well as in transport, enclosed documents, and the manufacturer quality certificates.</p> <p>In case receiving the goods from the carrier, if non-conformity of the goods according to quality/quantity is determined, the Customer (consignee) has to stop receiving the goods. Take measures to ensure the safety of the goods and prevent mixing with other uniform goods as well as notify the Seller about this in writing within 5 (five) working days from the date of finding the shortage.</p> <p>The Seller is obliged to send the Customer (consignee), no later than 10 (ten) working days from</p>

the date of receipt of the notification, a response about the participation of his representative in the further acceptance of the goods. The Seller's representative must participate in the acceptance of the goods within a reasonable time, not exceeding 20 (twenty) calendar days from the date of receipt of the notification.

#### 5.2 Requirements for transfer of technical and other documents to the Customer at goods supply

The Supplier has to provide the following documents confirming the compliance of the goods with the established requirements:

Certificates (bills) of compliance with the requirements of GOST and safety;  
Specification of the main equipment accessories with an indication of manufacturers, as well as the attachment of certificates of conformity to them;  
Installation, commissioning and operation documentation in Russian or English;  
All supplied equipment passes through incoming control for receipt of the equipment at the warehouse.

The goods must be accompanied by the following documentation:

- it is necessary to provide a certificate of conformity of the goods;
- Seller's invoice with a description of the goods, indicating the quantity, unit price, and total amount;
- a bill of lading issued in the name of Consignee, name of Customer, the number and date of signing of the existing contract;
- certificate of origin of the country of the goods indicating the number and date of the invoice;
- packing list;
- certificate of quality of the goods issued by the manufacturer;
- safety data sheet

#### 5.3 Requirements for insurance of goods

The goods must be insured. The equipment supplied must be designed to operate continuously around the clock under specified conditions for a specified service life.

### 6. TRANSPORTATION REQUIREMENTS

After the manufacture of spare parts, pack in a box and protect against mechanical damage. The goods should be shipped in the manufacturer standard packing (sealed, tight, and duly packaged) ensuring its full safety from all kinds of damage during long-term storage and transportation of products, taking into account several overloads in transit. Other options and package sizes are subject to additional approval by the Customer to their acceptability.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

### 7. REQUIREMENTS FOR STORAGE

At storage spare parts, avoid harmful effects such as high temperature and corrosive environment and protect against mechanical damage.

### 8. REQUIREMENTS FOR SCOPE AND-OR GUARANTEE PERIOD

The guarantee period for the supplied materials and equipment is as per the certificate of origin, but not less than 12 months. The start time for calculating the guarantee period is the start-up of the equipment.

The Supplier must, at his own expense and within the duration of an agreement with the customer, eliminate any defects in the supplied equipment, materials identified during the guarantee period. In the event of equipment failure, the Supplier has to send his representative to participate in drawing up a report according to settled defects, agree on the procedure and terms for their rectification. In this case, the warranty period is extended accordingly for the period of rectification.

### 9. REQUIREMENTS FOR REPAIRABILITY

Not required

### 10. MAINTENANCE REQUIREMENTS

#### 10.1 Maintenance requirements

Spare parts supplied must be designed to operate continuously around the clock under specified conditions for specified service life.

#### 10.2 Service requirements

Not required



### 11 ENVIRONMENTAL AND HEALTH REQUIREMENTS

The goods should not cause any damage to the environment.

### 12. REQUIREMENTS FOR ENERGY EFFICIENCY

The quality of the goods should ensure the possibility of its intended use without negative consequences.

### 13. SAFETY REQUIREMENTS

The goods should be safe during its operation, storage, and disposal

### 14. REQUIREMENTS FOR QUALITY AND CLASSIFICATION

The quality and completeness of the supplied goods should comply with the terms of the contract the requirements of the regulatory document. The quality of goods is certified by a certificate of quality and other documents provided by current law, confirming the quality of goods. In case of variations, the goods are returned to the Supplier at his own expense. Goods replacement should be fulfilled within 14 calendar days.

If the participant offers goods for delivery according to other regulatory and technical documentation (analog, equivalent); it is necessary to attach certified documents to the participant's application in the request for prices: a certificate/ bill of conformity, copy from the specifications for the goods, and any other certified documents at the option of the participant in the purchasing procedure, confirming the compliance of the technical characteristics of the goods intended for delivery of the Customer's requirements.

### 15. REQUIREMENTS FOR QUANTITY, EQUIPMENT, PLACE AND TIME (PERIODICITY) OF DELIVERY

No	Name of product	Unit	Quantity
1	Repair Kit for control Valve for item. PV-17004	set	1

The scope of the present technical assignment requires the supply of spare parts for valves: item numbers and names of spare parts are indicated in paragraph 4.1 of the present technical assignment of the manufacturer's technical documentation (item numbers and names of spare parts are indicated in the attached technical assignment as per the manufacturer's technical documentation.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

### 16. REQUIREMENT FOR RELATED SERVICES FOR DELIVERY OF EQUIPMENT

Not required

### 17. REQUIREMENT FOR THE FORM OF SUBMITTED INFORMATION

Not required

### 18. LIST OF ACCEPTED ABBREVIATIONS

No.	Abbreviation	Key to Abbreviations
1	RD	Regulatory documentation
2	TA	Technical assignment

### 19. LIST OF APPENDICES

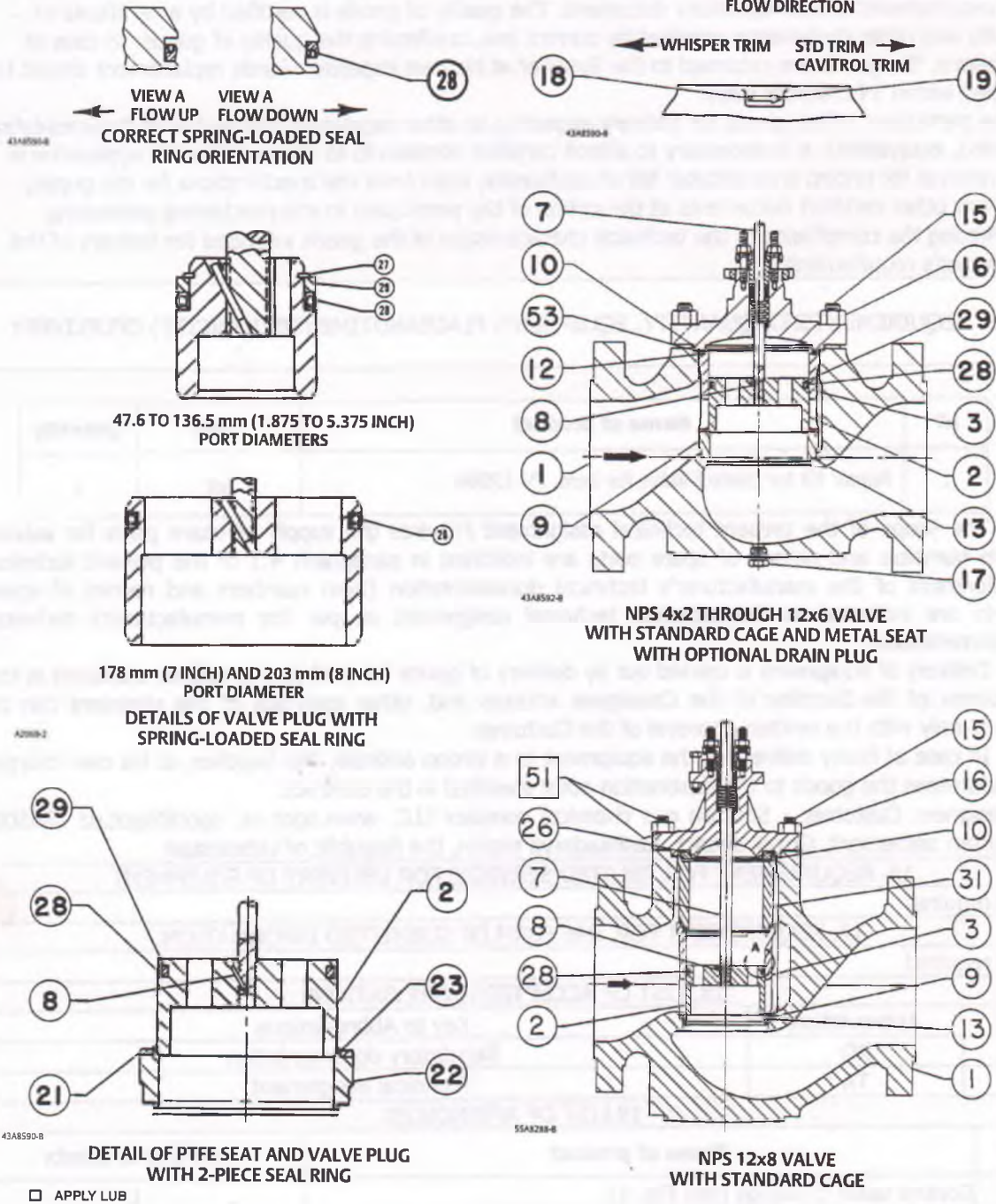
No	Name of product	Number of sheets
1	Control valve drawings (see Fig. 1).	1

\*Note: The developer is responsible for correct filling and blank items





Figure 24. Typical Fisher EWT Valve Assemblies



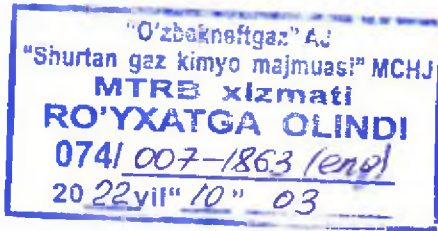
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«APPROVED»

Chief metrologist of  
«Shurtan GCC», LLC

Kh. A. Makhimudov



### TECHNICAL ASSIGNMENT

for purchasing of the repair kit for pressure control valve  
for the needs of «Shurtan GCC», LLC

## 1. GENERAL INFORMATION

### 1.1. Name

**The repair kit for pressure control valve**

### 1.2. Basis and purpose of purchasing goods

Basis: Approved annual request for 2021.

Purpose: To provide stable operation of existing control valves.

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

The delivered products shall be manufactured in or prior to the year of delivery and shall be new, not previously used.

1.4 Foreign Economic Activity Commodity Nomenclature (HS code) and other international codes if applicable. The manufacturer of goods shall provide with the Foreign Economy Activity Commodity Nomenclature code / (HS code) or other international codes.

## 2. SCOPE OF USE

The for pressure control valve is used in processes using ultra-high pressure steam. As valves are operated in very severe conditions at a temperature of -50 °C of + of +100 °C (the running cycle is over 8000 hours a year) and in the investigation the frequent wear of the main internal parts of the valve is detected.

The valve parts are subject to normal wear and tear and therefore require periodic inspection and replacement if necessary. The frequency of inspection and replacement of parts depends on the rigidity of the operating conditions. Since companies take special measures to meet all production requirements (heat treatment, dimensional tolerances, etc.), therefore, only parts manufactured and supplied by the company are used when replacing parts.

## 3. OPERATING CONDITIONS

Ambient temperature range: -30 to + 85 ° C;

Relative humidity of ambient air: from 5% to 95%;

## 4. TECHNICAL REQUIREMENTS

### 4.1 Basic technical requirements

**The list of the repair kit for pressure control valve is given below:**

№	Item name	Name and specification	Unit	Required quantity															
1	The repair kit for pressure control valve HV-21171	Body model: CP Size: 1 1/2" S.n: 15321089 Spherical Type Flow Valve Design, Design Tem. +150°C, Pressure design-0.8 Mpa (G), Connected - Class #150, Input - RF Flange, Output - RF Flange. Material - CA6NM, Flow direction - Down.	set	1															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">GASKET,PTFE,COATED</td> <td style="text-align: center;">14B7829X032</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td style="text-align: center;">GASKET,SEAT RING</td> <td style="text-align: center;">18A0882X012</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td style="text-align: center;">SEAT RING RETAINER</td> <td style="text-align: center;">24B7812X032</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td style="text-align: center;">SEAT RING</td> <td style="text-align: center;">24B7856X042</td> <td style="text-align: center;">1 pc</td> </tr> <tr> <td style="text-align: center;">PLUG/STEM.LINEAR</td> <td style="text-align: center;">24B7881X032</td> <td style="text-align: center;">1 pc</td> </tr> </table>	GASKET,PTFE,COATED	14B7829X032	1 pc	GASKET,SEAT RING	18A0882X012	1 pc	SEAT RING RETAINER	24B7812X032	1 pc	SEAT RING	24B7856X042	1 pc	PLUG/STEM.LINEAR	24B7881X032	1 pc		
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SEAT RING RETAINER	24B7812X032	1 pc																	
SEAT RING	24B7856X042	1 pc																	
PLUG/STEM.LINEAR	24B7881X032	1 pc																	



#### 4.2 Requirements for reliability

The average service life of spare parts is two years when using aggressive media, the average service life of which depends on the property of the aggressive environment, operating conditions and materials used. The supplied equipment shall be designed for continuous operation, 24 hours a day, 7 days a week under specified conditions during the specified service life.

#### 4.3 Requirements for design, mounting and technical requirements.

During replacing of the details it is necessary to use only the details made and delivered by the company. Numbers of positions and the name of spare parts are specified according to the technical documentation of the manufacturer attached to the present technical assignment.

#### 4.4 Requirements for materials.

See the specifications in the section 4.1.

#### 4.5 Requirements for marking.

Marking of the equipment shall be made in Russian (or in English) language, and have accurate designations. Also the manufacturer, the batch number and date of production shall be specified. Marking shall remain on during all service life of the supplied equipment.

#### 4.6 Requirements for the sizes and packaging

Delivery of goods shall be carried out in the tare/package. The tare and package shall have presentation, ensure safety of products against mechanical damage during loading and unloading operations during transportation and also at long storage, (as per the manufacturer requirement). Shall provide protection against mechanical damage during storage, transportation and packing.

### 5. REQUIREMENTS AS PER RULES OF DELIVERY AND ACCEPTANCE

#### 5.1 Procedure of delivery and acceptance

The goods shall be accepted after incoming control and drawing up the act according to the contract.

The customer shall carry out of acceptance of goods by quantity, quality and completeness of batch, and external signs of safety of goods (presence of mechanical damages, visible deformation of separate blocks and details of goods and other similar apparent signs of damage according to transport and accompanying documents, certificates of quality of manufacturer.

Hereby, the parties agree that the visual inspection of the goods performed by the representative of the Customer shall be absolute and final for the parties to determine compliance as per quantity, completeness and external signs of preservation of the goods during its transportation.

The products shall have the certificates of conformity and protocols of certified tests confirming the stated characteristics, to be accompanied by documentation for installation, adjustment and operation.

All accompanying documentation shall be prepared made in the Russian or English languages and to be handed over to the Customer together with the delivered products.

The supplied equipment shall be designed for operation in the continuous mode round the clock at the set conditions during an established service life.





Marking of the equipment shall be carried out in the Russian and English languages and have accurate designations. Also the manufacturer, the batch number and date of production shall be specified.

Marking shall remain on all service life of the supplied equipment.

The options of technical parameters and characteristics of the equipment and materials offered by the participant not specified in TA, are coordinated in addition.

Upon acceptance of the goods from the carrier, the Customer (consignee) shall check the conformity of the goods with the information specified in the contract, specifications or additional agreements to it, as well as in transport, accompanying documents, quality certificates of the manufacturer.

If upon acceptance of the goods after their receipt from the carrier there is a non-conformity of the goods by quality/quantity, the Customer (consignee) shall suspend the acceptance of the goods, take measures to ensure the safety of the goods and prevent mixing with other homogeneous goods and notify the Seller in writing within 5 (five) working days from the moment of detection of defects.

The Seller shall send to the Customer (consignee) not later than 10 (ten) working days from the moment of receipt of the notification the response on participation of its representative in further acceptance of the goods. The Seller's representative shall appear to participate in the acceptance of the goods within a reasonable period not exceeding 20 (twenty) calendar days from the date of receipt of the notice.

5.2 Requirements for handing-over to the customer the technical and other documents during supply of equipment.

The Supplier shall provide with the following documents confirming compliance of the products with the established requirements:

Certificates (declarations) of compliance with GOST and safety requirements;

Specification of main components of equipment with indication of manufacturers, as well as attachment of conformity certificates for them;

Documentation for installation, adjustment and operation in Russian and English;

All supplied equipment is subject to incoming inspection with the participant's representative during receiving of the equipment at the warehouse.

The goods shall be accompanied by the following documentation:

- the certificate of conformity of the goods;
- invoice (invoice) of the Seller with description of the goods, indication of the quantity, price of the unit of goods and total amount;
- consignment note issued in the name of the consignee, indicating the name of the Customer, the number and dates of signing of the existing contract;
- Certificate of origin of the country of goods indicating the invoice number and date;
- packing list;
- Certificate of quality of goods issued by the manufacturer;
- product safety passport.



### 5.3 Equipment Insurance Requirements

Equipment insurance is carried out at the expense of the supplier.

## 6. TRANSPORTATION REQUIREMENTS

Conditions of transportation, storage, loading and unloading shall ensure safety of the product against mechanical damages. The goods must be shipped in the manufacturer's export standard package, ensuring its complete safety from all kinds of damage during long-term storage and transportation of products, taking into account several transshipments in transit.

## 7. STORAGE REQUIREMENTS

During storage of the spare parts, it is necessary to avoid harmful effects, such as high temperature and aggressive environment and provide with protection against mechanical damage.

## 8. REQUIREMENTS FOR THE SCOPE AND/OR PERIOD OF GUARANTEES

Warranty period for supplied materials and equipment shall be in accordance with the manufacturer's passport, but not less than 12 months. The beginning time of the warranty period is from the moment of equipment commissioning.

The Participant shall at his own expense and at the time agreed with the Customer, eliminate any defects in the supplied equipment, materials identified during the warranty period.

In case of equipment failure, the participant is obliged to send his representative for participation in drawing up an act with fixing of the defects, for agreeing on the procedure and terms for their elimination not later than 5 days from the date of receipt of the customer's written notice. The warranty period in this case is extended accordingly for the period of elimination of defects.

## 9. MAINTENANCE REQUIREMENTS

The supplied spare parts shall be designed for continuous operation, 24 hours a day under specified conditions during the specified service life.

## 10. ENVIRONMENTAL AND SANITARY REQUIREMENTS

The quality of the product shall ensure that it can be used for its intended purpose without negative consequences:

- the goods shall be safe during their operation;
- the goods shall not cause any damage to the environment.
- shall fully comply with the requirements of the environmental standard ISO-14001.

## 11. ENERGY EFFICIENCY REQUIREMENTS

The quality of the product shall ensure that it can be used for its intended purpose without negative consequences.

## 12. SAFETY REQUIREMENTS

The goods shall be safe during their operation, storage and disposal.

## 13. QUALITY AND CLASSIFICATION REQUIREMENTS



The quality and completeness of the delivered products shall comply with the terms of the contract, the requirements of the ND. The quality of the products is certified by a certificate (passport) of quality, as well as other documents provided by the current legislation confirming the quality of the products. In case of non-conformity of the goods' specifications, the goods shall be returned to the Supplier's address and at the Supplier's expense. Product replacement shall be performed within 14 calendar days. If the participant offers the goods for delivery according to other regulatory and technical documentation (analogue, equivalent), it is necessary to attach certified documents to the participant's application for prices: a certificate/declaration of conformity, the writing out from the passport of a technical device for the goods, as well as any other certified documents at the discretion of the participant in the procurement procedure confirming the compliance with the technical characteristics of the goods intended for delivery with the requirements of the Customer.

#### 14. REQUIREMENTS FOR QUANTITY, COMPLETING, PLACE AND DELIVERY TIME (PERIODICITY)

The scope of this TA requires the supply of the repair kit for the valve of the following name and number, item numbers and names of spare parts are specified in accordance with section 4.1 of this TA, the manufacturer's technical documentation (item numbers and names of spare parts are specified in accordance with the technical documentation of the manufacturer attached to this specification. The equipment shall be delivered at the Supplier's expense by means of shipment of products by road and/or air transport to the consignee's address, other methods of shipment may be carried out only with written approval of the Customer. The delivery time of the goods is 2 months (60 calendar days).

In case of erroneous shipment of equipment not to the address, the Supplier shall, at its own expense, forward the products to the destination specified in the contract.

Consignee: Customer - "Shurtan GCC", LLC. The Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300, www.sgcc.uz, sgcc@sgcc.uz

#### 15. LIST OF ACCEPTED ABBREVIATIONS

No	ABBREVIATIONS	
1	TA	Technical Assignment
2	ND	Normative Documentation

#### 16. LIST OF APPENDICES

No	Name	Number of sheets
1	pressure control valve drawings.	I

*\*Note: The developer is responsible for correct filling-in and blank items.*

**Developed by:**

**Foreman of The instrumentation and automation shop:**

*W. Botirov*  
Sh. Botirov

**Agreed with:**

**Deputy Chief Metrologist:**

*O. Achilov*  
O. Achilov

**Chief of The instrumentation and automation shop:**

*Z. Jalilov*  
Z. Jalilov

**Chief of the area of The instrumentation and automation shop:**

*Sh. Allayorov*  
Sh. Allayorov

**Lead engineer of The Material and technical resource management service:**

*M. Hobiev*  
M. Hobiev



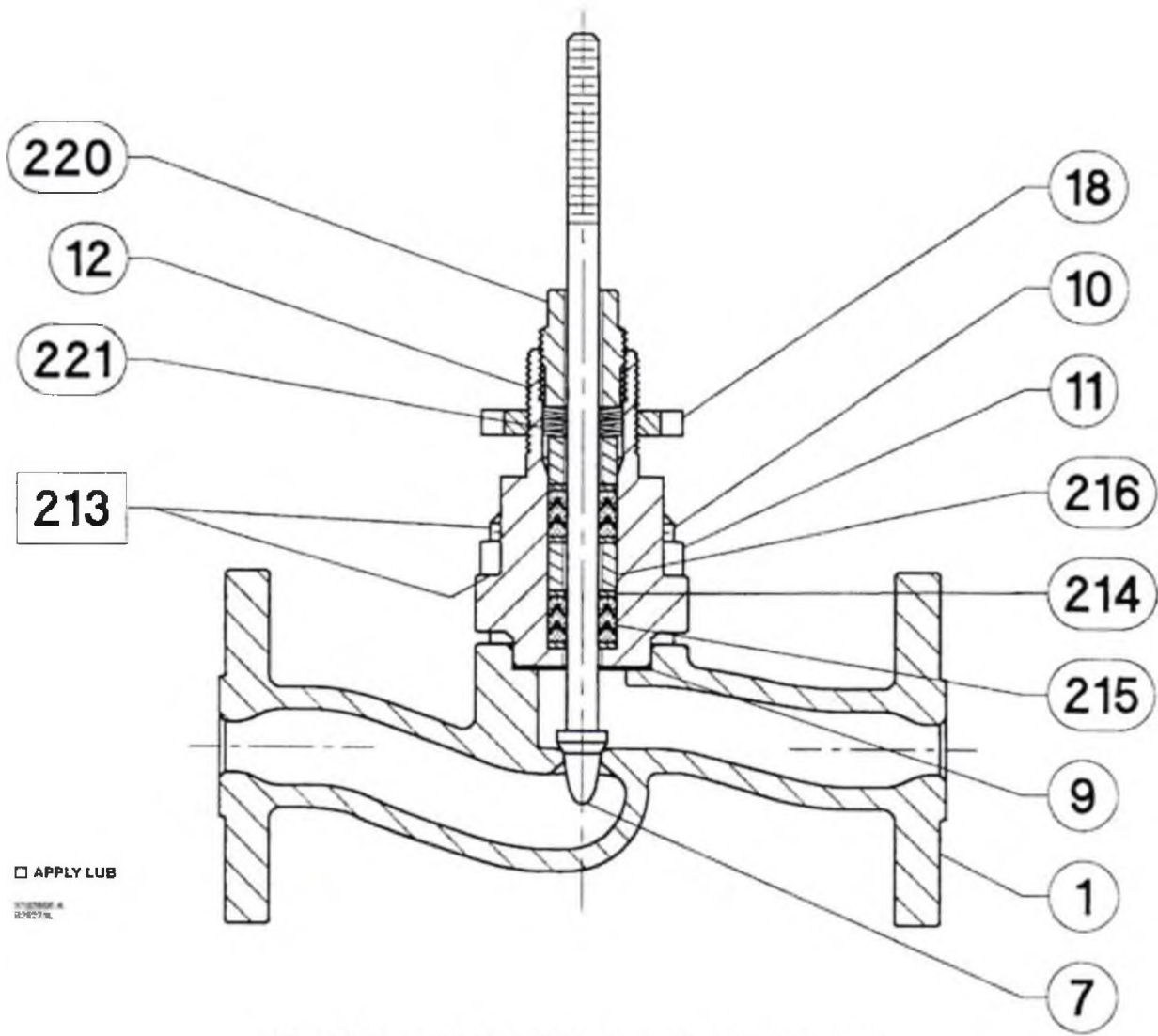


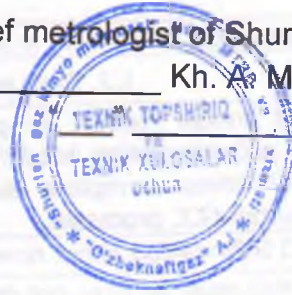
Figure 4. Design CP Control Valve Assembly (0.5 and 0.75 Inch)





**CONFIRM**

Chief metrologist of Shurtan GCC LLC  
Kh. A. Makhmudov  
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**№ 074/ 007 – 1842 (eng)**  
**dd. 2021 y "18" Avgust**

**TECHNICAL ASSIGNMENT**  
**for purchasing mechanical part (BODY)**  
**valves**  
**for the needs of Shurtan GCC LLC**



**SGCC - 2021**

## 1. GENERAL INFORMATION

<b>1.1. Name</b>
The present technical assignment is developed for purchasing mechanical part (BODY) valves
<b>1.2. Basis and purpose of purchasing goods</b>
Basis: Approved annual request for purchasing spare parts, materials, and equipment at the instrumentation and automation unit for 2022. Purpose: control valves to replace existing failed valves and ensure stable and uninterrupted operation of Shurtan GCC processes.
<b>1.3 Information about novelty (year of production/manufacture of goods)</b>
The supplied goods must be new, not previously used, and produced no earlier than 2020 and meet safety and quality standards according to the law of the Republic of Uzbekistan.
<b>1.4 FTP code and other international codes, if applicable</b>
The manufacturer of the goods should provide the FTP code or other international codes.

## 2. SCOPE OF APPLICATION

Existing control valves are used in technological processes, with ultra-high pressure steam applications. The valves are designed to seal the flow of the working medium on pipelines with elevated temperatures, high pressure and abrasive media. Since the valves are operated under very harsh conditions (duty cycle is over 8000 hours per year), frequent wear of the main internal valve structures is revealed

## 3. OPERATING CONDITIONS

<b>3.1 Basic operating conditions</b>
Working site - indoors with forced ventilation; Ambient temperature range: from +5 to +55°C; Ambient relative humidity: from 5% to 80%; Valve parts are subject to normal wear and should therefore be periodically inspected and replaced as necessary. The periodicity of maintenance inspections depends on the severity of the operating condition
<b>3.2 Additional/special requirements for operation</b>
The valves are widely used, depending on actual temperatures, pressures and other operating conditions.

## 4. TECHNICAL REQUIREMENTS

### 4.1. Basic technical requirements

№	Name of product	Specifications	Unit	Quantity
Technical parameters for the existing control valves				
1	Valve kit (BODY) for item. LV-22078	Body model: EZ Size: 2", BODY Style: Globe ANSI 300, S./n: 15228403; Medium: Steam. Flow rate (Q) - 9.549 m <sup>3</sup> /h. Pressure input (P1) - 3235.000 Kpa (g), Pressure output (P2) - 3336.000 Kpa, Temp. (T)-240.000 deg °C. Flow coefficient (Cv) - 4.851 Spherical Type Flow Valve Design, Design Tem- 250 °C, Pressure design-4.135 Mpa (G), Connected - Class 300, Inlet - RF Flange, Outlet - RF Flange, Material - WCB ss. Pass - Holes, Flow Direction - Up. uide Trim-128 Cage Material-316 SST Saddle Material - 316 SST HD Metal Plunger Material - 316 SST HD, Guide - Post, Balance - Unbalanced, Tightness Class - Class IV, Hole Size - 1 inch, Throughput - Equaal.	set	1





2	Valve kit (BODY) for item. TV-34007	Body model: EZ Size: 3/4", BODY Style: Globe ANSI 600, S./n: 15236924; Medium: Steam. Flow rate (Q) - 0.046 m3/h. Pressure input (P1) - 5900.000 Kpa (g), Pressure output (P2) - 5730.000 Kpa, Temp. (T)-225.000 deg °C. Flow coefficient (Cv) - 0.700	set	1
		Spherical Type Flow Valve Design, Design Tem- 184 °C, Pressure design-7.8 Mpa (G), Connected - Class 600, Inlet - RF Flange, Outlet - RF Flange, Material - WCB ss. Pass - Holes, Flow Direction - Up. Guide Trim-127 Cage Material-316 SST Saddle Material - 316 SST HD Metal Plunger Material - 316 SST HD, Guide - Post, Balance - Unbalanced, Tightness Class - Class IV, Hole Size - 0.375 inch, Throughput - Equaal,		

**4.2 Main technical, economic and operating characteristics**

Not required

**4.3 Reliability requirements**

The average life of spare parts per year, for the operation of the corrosive environments, the service life depends on the properties of the corrosive environment, operating conditions, and materials used.

**4.4 Design requirements, installation, and technical requirements**

For replacing parts, it is necessary to use only parts produced and supplied by the company item numbers and names of spare parts are indicated per the manufacturer's technical documentation attached to the present technical assignment

**4.5 Requirements for materials**

See technical data in item 4.1

**4.6 Requirements for stability and parameters exposure to environmental factors**

At exposed to environmental factors, avoid harmful effects such as high temperature and corrosive environment. Protect against mechanical damage during storage, transportation, and packing.

**4.7 Requirements for power supply**

Not required

**4.8 Requirements for instrumentation and automation**

Not required

**4.9 Requirements for components, initial and operational materials**

see technical data in item 4.1

**4.10 Requirements for labeling**

Equipment must be labeled in Russian and should be clearly indicated. The manufacturer, batch number, and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment.

**4.11 Requirements to sizes and packing**

The goods are delivered in containers/packing. Containers and packing should have a presentation to ensure the safety of goods from mechanical damage during loading and unloading, during transportation, in addition to long-term storage (as per the manufacturer's requirements). Protect against mechanical damage during storage, transportation, and packing.

**4.12 Requirements for spare parts and wearing parts**

Not required

**5. REQUIREMENTS TO RULES FOR DELIVERY AND ACCEPTANCE**

**5.1 Order of delivery and acceptance**

The goods should be accepted after incoming inspection and drawing up a report following the contract.

The Customer accepts the goods according to the quantity, quality, complete of the lot, and the external signs of the safety of the goods (mechanical damage, visible deformation, and other similar damage) following the transport and enclosed documents, the manufacturer's quality certificates. Being parties agree that the visual inspection of the goods carried out by the Customer representative must be absolute and final for the parties to determine the conformity according to quantity, complete and external signs of goods safety during transportation.

Goods should have certificates of conformity and certification test reports confirming the applied for

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characteristics, accompanied by documentation for installation, commissioning and operation. All accompanying documentation should be drawn up in Russian or English and handed over to the Customer along with the supplied goods. The equipment supplied should be designed to operate continuously around the clock under specified conditions for specified service life. Equipment must be labeled in Russian and clearly indicated. The manufacturer, batch number and date of manufacture are also indicated. The labeling must remain for the entire service life of the supplied equipment. Versions of technical parameters and characteristics of equipment and materials offered by the Bidder that are not specified in the technical assignment are agreed additionally.

At receiving the goods from the carrier, the Customer (consignee) should check the conformity of the goods with the information specified in the contract, specifications, or additional agreements to it, as well as in transport, enclosed documents, and the manufacturer quality certificates.

In case receiving the goods from the carrier, if non-conformity of the goods according to quality/quantity is determined, the Customer (consignee) has to stop receiving the goods. Take measures to ensure the safety of the goods and prevent mixing with other uniform goods as well as notify the Seller about this in writing within 5 (five) working days from the date of finding the shortage.

The Seller is obliged to send the Customer (consignee), no later than 10 (ten) working days from the date of receipt of the notification, a response about the participation of his representative in the further acceptance of the goods. The Seller's representative must participate in the acceptance of the goods within a reasonable time, not exceeding 20 (twenty) calendar days from the date of receipt of the notification.

#### 5.2 Requirements for transfer of technical and other documents to the Customer at goods supply

The Supplier has to provide the following documents confirming the compliance of the goods with the established requirements:

Certificates (bills) of compliance with the requirements of GOST and safety;

Specification of the main equipment accessories with an indication of manufacturers, as well as the attachment of certificates of conformity to them;

Installation, commissioning and operation documentation in Russian or English;

All supplied equipment passes through incoming control for receipt of the equipment at the warehouse.

The goods must be accompanied by the following documentation:

- it is necessary to provide a certificate of conformity of the goods;

- Seller's invoice with a description of the goods, indicating the quantity, unit price, and total amount;

- a bill of lading issued in the name of Consignee, name of Customer, the number and date of signing of the existing contract;

- certificate of origin of the country of the goods indicating the number and date of the invoice;

- packing list;

- certificate of quality of the goods issued by the manufacturer;

- safety data sheet

#### 5.3 Requirements for insurance of goods

The goods must be insured. The equipment supplied must be designed to operate continuously around the clock under specified conditions for a specified service life.

### 6. TRANSPORTATION REQUIREMENTS

After the manufacture of spare parts, pack in a box and protect against mechanical damage.

The goods should be shipped in the manufacturer standard packing (sealed, tight, and duly packaged) ensuring its full safety from all kinds of damage during long-term storage and transportation of products, taking into account several overloads in transit.

Other options and package sizes are subject to additional approval by the Customer to their acceptability.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

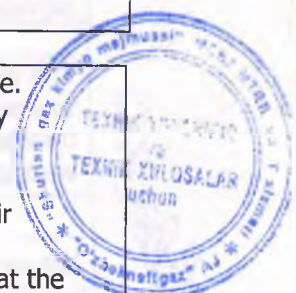
Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

### 7. REQUIREMENTS FOR STORAGE

At storage spare parts, avoid harmful effects such as high temperature and corrosive environment and protect against mechanical damage.

### 8. REQUIREMENTS FOR SCOPE AND-OR GUARANTEE PERIOD

The guarantee period for the supplied materials and equipment is as per the certificate of origin,



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but not less than 12 months. The start time for calculating the guarantee period is the start-up of the equipment.

The Supplier must, at his own expense and within the duration of an agreement with the customer, eliminate any defects in the supplied equipment, materials identified during the guarantee period. In the event of equipment failure, the Supplier has to send his representative to participate in drawing up a report according to settled defects, agree on the procedure and terms for their rectification. In this case, the warranty period is extended accordingly for the period of rectification.

#### 9. REQUIREMENTS FOR REPAIRABILITY

Not required

#### 10. MAINTENANCE REQUIREMENTS

##### 10.1 Maintenance requirements

Spare parts supplied must be designed to operate continuously around the clock under specified conditions for specified service life.

##### 10.2 Service requirements

Not required

#### 11 ENVIRONMENTAL AND HEALTH REQUIREMENTS

The goods should not cause any damage to the environment.

#### 12. REQUIREMENTS FOR ENERGY EFFICIENCY

The quality of the goods should ensure the possibility of its intended use without negative consequences.

#### 13. SAFETY REQUIREMENTS

The goods should be safe during its operation, storage, and disposal

#### 14. REQUIREMENTS FOR QUALITY AND CLASSIFICATION

The quality and completeness of the supplied goods should comply with the terms of the contract the requirements of the regulatory document. The quality of goods is certified by a certificate of quality and other documents provided by current law, confirming the quality of goods. In case of variations, the goods are returned to the Supplier at his own expense. Goods replacement should be fulfilled within 14 calendar days.

If the participant offers goods for delivery according to other regulatory and technical documentation (analog, equivalent); it is necessary to attach certified documents to the participant's application in the request for prices: a certificate/ bill of conformity, copy from the specifications for the goods, and any other certified documents at the option of the participant in the purchasing procedure, confirming the compliance of the technical characteristics of the goods intended for delivery of the Customer's requirements.

#### 15. REQUIREMENTS FOR QUANTITY, EQUIPMENT, PLACE AND TIME (PERIODICITY) OF DELIVERY

No	Name of product	Unit	Quantity
1	Valve kit (BODY) for item. LV-22078	set	1
2	Valve kit (BODY) for item. TV-34007	set	1

The scope of the present technical assignment requires the supply of spare parts for valves: item numbers and names of spare parts are indicated in paragraph 4.1 of the present technical assignment of the manufacturer's technical documentation (item numbers and names of spare parts are indicated in the attached technical assignment as per the manufacturer's technical documentation.

Delivery of equipment is carried out by delivery of goods by road and-or railway transport at the expense of the Supplier to the Consignee address and, other methods of the shipment can be made only with the written approval of the Customer.

In case of faulty delivery of the equipment to a wrong address, the Supplier, at his own charge, readdresses the goods to the destination point specified in the contract.

Consignee: Customer - Shurtan gas chemical complex LLC, www.sgcc.uz, sgcc@sgcc.uz 180300, Shurtan settlement, Guzar district, Kashkadarya region, the Republic of Uzbekistan

