



"APPROVE"

Chief mechanical engineer of  
«Shurtan GCC», LLC  
KH. Allayorov  
2022 y



Per. № 074/ \_\_\_\_\_

TECHNICAL ASSIGNMENT  
for the purchase of shut-off valves with a steel flange  
for the needs of LLC «Shurtan GCC»

## 1. GENERAL INFORMATION

## 1.1 Name

1. Ball valve with a manual mechanical gearbox with a set of mating flanges, fasteners and a swivel plug 20" #600
2. Flanged check valve 20" #600
3. Two flanged butterfly valves 28" #150.
4. Double blocking valve with mating flange kit, 3/4" hardware #600
5. Rising stem wedge gate valve with mating flange kit, 2" #600 fasteners.
6. Valve with mating flange kit, 2" #600 fasteners.
7. Two flanged butterfly valves 20" #150.

## 1.2 Basis and purpose of material acquisition

Reason: annual application for 2021 and 2022.

Purpose: used on new project workers.

## 1.3 Notice of novelty

The equipment must be new, not earlier than 2021 of release (which was not in use, including which was not restored, which did not restore consumer properties).

## 2. APPLICATION

Shut-off valves are used to open and close technological pipelines of the ethylene production shop.

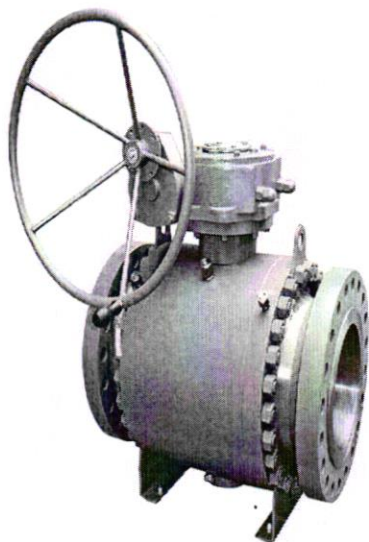
## 3. SERVICE CONDITIONS

## 3.1 General operating conditions

The operating mode of the installation is continuous. The unit is stopped for repairs once a year for 18 days. The shut-off valves are installed in an open area with an ambient temperature of  $-20 + 60^{\circ}\text{C}$ .

## 4. TECHNICAL REQUIREMENTS

## 4.1 Basic technical requirements



Ball valve with a manual mechanical gearbox with a set of mating flanges, fasteners and a swivel plug

Accession type: flange.

Quantity 2 sets.

Face to Face Dimensions / Face to face: ASME B16.10

Flange Ends Dimensions / Connecting flanges: ASME B 16.5

Inspection and Test / Tests for strength and tightness: API 598 .

Pressure-Temperature Relationship: ASME B 16.34

Type Flange / Raised Flange: RF (STD)

ASME 600 class.

Nominal passage of the ball valve: 20"

Tightness class: "A".

Working environment: Water, steam, gas, oil products.

Suitable Temperature / Working environment temperature:  $+135^{\circ}\text{C}$

Body / Body material: ASTM A216 Gr.WCB

Ball / Ball: AISI 316

Stem / Stem: AISI 316

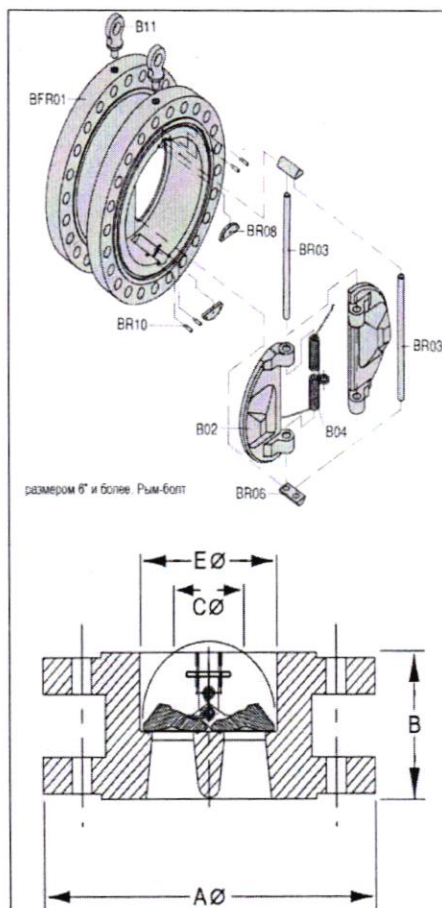
Seat Ring / Ball Seal: PEEK

O-ring stem / Gland seal: Viton

Seal body / Body seal: PEEK







DUAL PLATE CHECK VALVE (Flanged Retainer less) TYPE BFR Flanged check valve without plug.

Quantity / Quantity 1 piece

Size / Nominal diameter: 20"

Class / ASME 600 class

Design in accordance with API 594

End to end dimension in accordance with API 594

Flange ends in accordance to /Connection flanges: ASME B16.5

Inspection and Test according to API 598

Manufacturing: metal-to-metal seal. / Manufacture: metal-to-metal seal.

Tightness class: "A".

Type Flange / Raised Flange: RF (STD)

Working medium / Working environment: Water, steam, gas, oil products.

Operating environment temperature -29 ~ 425°C

Working environment pressure: 5500 kPa.

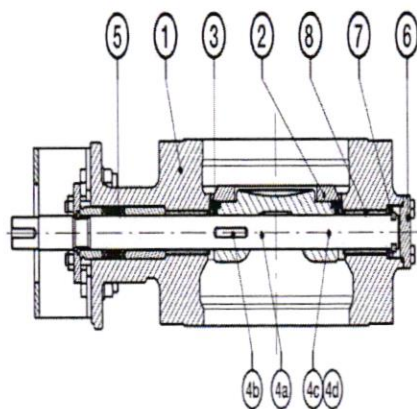
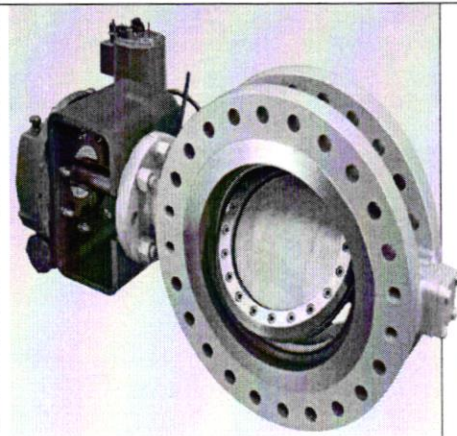
Body / Housing material: ASTM A216 WCB

Body Seat: ASTM A217 CA15

Disc seat ASTM 410SS

Plot: ASTM 410SS

Spring/Spring material: Inconel X750®.



Two Flanged Butterfly Valves

Quantity 2 pieces.

Nominal diameter in inches: ASME size: 28"

Nominal pressure: Pa class ASME 150.

General design requirements: API 609

Face to face: ASME B16.10

Connecting flanges: ASME B16.47 Serie B connecting lug RF.

Strength and leak test: API 598.

Management: Local mechanical.

Pressure-Temperature Relationship: ASME B 16.34

Tightness class: "A".

Working environment: Water, gas, oil products.

Working environment temperature: 120°C

Body / Body material: ASTM A216 WCB

Disc: ASTM A351 CF8M

Stem: ASTM A564 630

Seat retainer: ASTM A105N

Down Bearing Bushing: SS304+PTFE

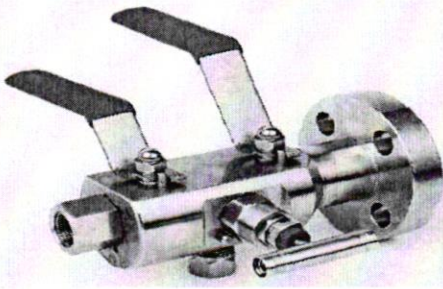
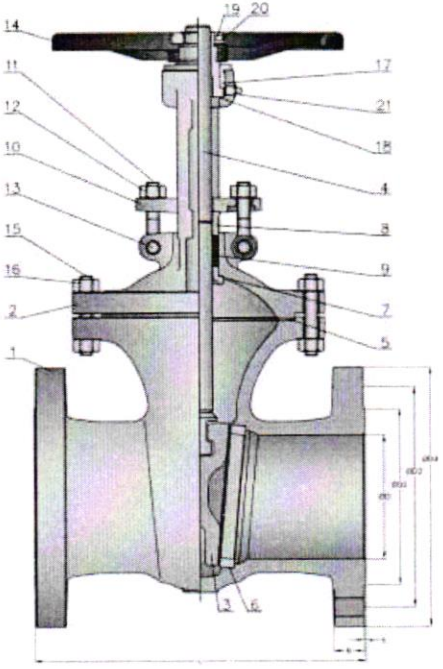
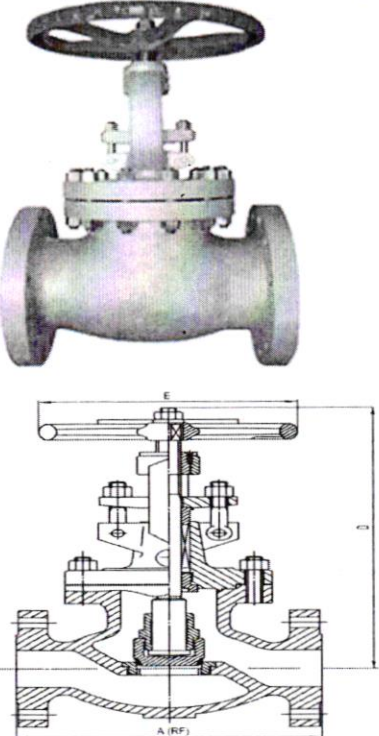
Seat ring: PTFE

Locating ring: S S304

Stem Packing: S S304

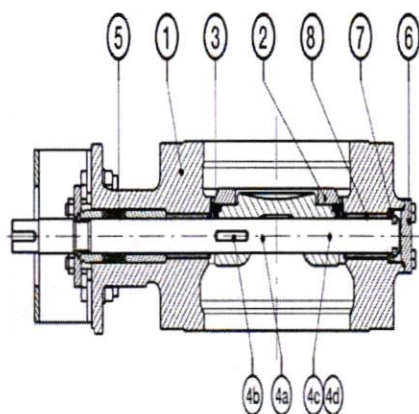
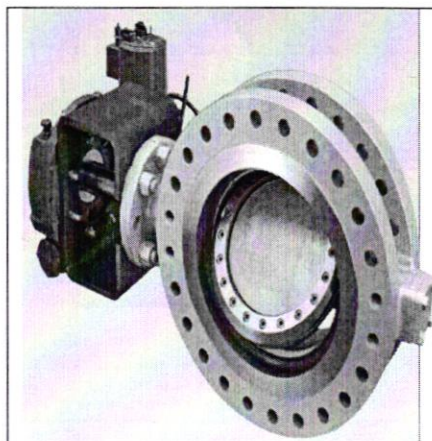
Gland Bush: PTFE



	<p>Double blocking fittings with a valve with a set of mating flanges, fasteners Quantity 4 sets.  Dimensions: ASME B16.10  Connections: ASME B16.5  Working Pressure: CLLAS 600(PN100)  Working Temperature: -29°C / +180°C  Body / Body material: ASTM A 105  Ball / ball material: AISI 316  Cover / Lid Material: Material: ASTM A 105</p>
	<p>Wedge gate valve with a set of mating flanges, fasteners Trim #12 / WCB  Quantity / Quantity 1 set  Size /Nominal pass: 2"  Class /Class according to ASME 600.  Operator - Hand wheel / Drive - hand wheel;  Tightness class: "A".  Design and Manufacture / General design requirements: Face-to-face: ASME B16.10  Connecting flanges: ASME B 16.5  Strength and leak test: API 598.  Pressure-Temperature Ratio: ASME B 16.3 Raised Flange: RF (STD)  Working environment: Water, steam, acids and alkalis, gas, oil products.  Working environment temperature: -29~425°C  Body / Housing material: ASTM A216 Gr. WCB  Bonnet/Cap Material: ASTM A216 Gr.WCB  Disc / Disc material: CF8M  Stem/Stem material: AISI 316  Gasket / Gasket material: Graphite+304SS  Seat Ring / Sealing ring material: 316 + St Gr6 (at least 350 HBN)</p>
	<p>Globe Valve / Valve with a set of mating flanges, fasteners.Quantity / Quantity 1 set  Size / Nominal pass: 2"  Class / Class according to ASME 600.  Operator - Hand wheel / Drive - hand wheel;  Tightness class: "A".  Design and Manufacture / General Design Requirements: BS1873/API 6D  Face to Face Dimensions / Face to face: ASME B16.10  Flange Ends Dimensions / Connecting flanges: ASME B 16.5  Inspection and Test / Strength and tightness tests: API 598.  Type Flange/ Raised Flange: RF (STD)  Pressure –Temperature chart/ Pressure-Temperature Relationship: ASMEB 16.34  Working medium / Working environment: Water, steam, gas, oil products.  Suitable Temperature: -29~425°C  Body / Body material: ASTM A216 Gr.WCB  Bonnet/ Cap Material: ASTM A216 Gr.WCB  Disc/ Disc material: F316  Stem/ Stem material: SS 316</p>







Double Flanged Butterfly Valve  
 Quantity 1 piece.  
 Nominal diameter in inches: ASME size: 20"  
 Nominal pressure: Pa class ASME 150.  
 General design requirements: API 609  
 Face to face: ASME B16.10  
 Connecting flanges: B 16.5.  
 connecting lug RF.  
 Strength and leak test: API 598.  
 Management: Local mechanical.  
 Pressure-Temperature Relationship: ASME B 16.34  
 Tightness class: "A".  
 Working environment: Water, gas, oil products.  
 Working environment temperature: 120°C  
 Body / Housing material: ASTM A351 CF8M  
 Disc: ASTM A351 CF8M  
 Stem: ASTM A351 CF8M  
 Down Bearing Bushing: SS304+PTFE  
 Seat ring: PTFE  
 Locating ring: S S304  
 Stem Packing: S S304  
 Gland Bush: PTFE  
 Bottom Cover: ASTM A105N  
 Bolt: ASTM A193 B7  
 Gasket: PTFE  
 Bolt: ASTM A320 L7

The Participant, as part of his application of the established form, must indicate the position of the manufacturer of the Goods, the country of manufacture, as well as submit documents issued directly by the manufacturer of the Goods, certifying the dealer's powers of the Participant or a letter confirming the readiness of the manufacturer of the Goods to deliver in accordance with the ToR.

The participant must provide a technical proposal (all documentation) in Russian or English.

The supplier must provide in the technical proposal drawings for each item, which indicate the dimensions of the structures, materials, parameters of the required tests developed by the manufacturer, the name and logo of the manufacturer's company.

The supplier is obliged to provide the manufacturer's form, which specifies the conditions for the fulfillment of warranty obligations.

If the above requirements are not provided in the technical proposal, this technical proposal will be considered non-compliant. Documents not submitted will not be re-requested.

#### 4.2 Additional requirements

Input control of materials at the manufacturing plant, confirmed by the relevant documentation.

Quality control of shut-off valves in the manufacturing process at manufacturing plants, confirmed by relevant documentation.

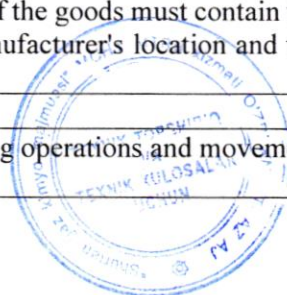
The materials used for the manufacture of valves must have quality certificates, in accordance with section 4.1 of this specification.

#### 4.3 Labeling requirements

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

#### 4.4 Dimensions and packaging requirements

Packaging must ensure the safety of the goods during transportation, loading and unloading operations and movement of the goods to the place of its installation.





The packaging must comply with the requirements of the state standards of the Republic of Uzbekistan and generally accepted international standards.

Packaging must strictly comply with the product labeling.

The Goods are delivered in a special container (packaging) provided for this type of Goods, which ensures the integrity of the Goods during transportation and delivery.

The packaging is disposable and cannot be returned to the Supplier.

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

##### 5.1 Order of delivery and acceptance

The goods are accepted after testing ZRA (shut-off control valves), if the technical parameters comply with clause 4.1, an acceptance certificate is drawn up in accordance with the contract.

When accepting the goods from the carrier, the Customer (consignee) is obliged to check the compliance 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.

In case of non-compliance of the delivered goods with the ordered specification or if the goods did not pass the incoming quality control, the Supplier is obliged to replace it within 14 calendar days. Transportation costs for the replacement of the goods are borne by the Supplier of the goods.

##### 5.2 Requirements for the transfer to the customer of technical and other documents upon delivery of equipment

To confirm the novelty of the equipment, the supplier must, at the time of delivery, submit the following documents confirming the novelty, quality and compliance with the technical specifications of the equipment proposed for delivery:

- technical passports, operating instructions for the goods, originals of the quality document for products in Russian.
- a copy of the certificate of conformity (valid at the time of the auction) confirming compliance with the requirements of regulatory documents;
- manufacturer's test certificate;
- samples of warranty cards.

The Contractor guarantees the Customer that the equipment purchased by him corresponds to the technical characteristics of the equipment declared by the customer of this equipment.

It is necessary to provide Material Certificates indicating chemical analysis and strength characteristics. It is necessary to provide Certificates of conformity of the material. Provide manufacturer's quality certificates in the scope of the technical proposal. Indicate the place and country of the product being manufactured.

#### 6. TRANSPORT REQUIREMENTS

Transportation conditions must ensure the safety of products, dimensions based on the possibility of transportation to the recipient's warehouse.

#### 7. REQUIREMENTS FOR THE VOLUME AND/OR TERM OF GUARANTEES

The supplier provides a quality guarantee for the goods in accordance with the manufacturer's guarantee.

The supplier is obliged to provide a document on the letterhead of the manufacturer, which specifies the conditions for the fulfillment of warranty obligations.

The supplier guarantees the quality and safety of the supplied goods in accordance with the current standards approved for this type of goods, and the availability of certificates required for this type of goods, issued in accordance with the legislation of the Republic of Uzbekistan.

The warranty period of operation must be at least 5 years from the date of commissioning of spare parts. The supplier of the goods during the warranty period must replace the delivered goods that are out of order at their own expense, provided that the defect (breakage) of the product occurred through no fault of the customer.

#### 8. REQUIREMENTS FOR QUALITY AND CLASSIFICATION

The product must be of high quality and meet the requirements for its intended purpose, having the necessary consumer properties and technical characteristics, environmental and industrial safety characteristics. The quality of the goods must be confirmed by a quality certificate issued by the manufacturer.

#### 9. ADDITIONAL (OTHER) REQUIREMENTS

Technical documentation must be in Russian. Upon delivery, the Supplier must submit documents confirming the compliance of the products offered by him with the established requirements:

it is necessary to provide a quality certificate (original or a copy certified by the Supplier's seal) for the delivery batch.

- the supplier is also responsible for compliance with technical parameters and for quality;
- in case of non-compliance of the Products with quality requirements, the Products shall be returned, and all costs for its purchase and delivery shall be borne by the Supplier.

The supplier must be a manufacturer or an official dealer of the manufacturer (it is obligatory to provide a copy of the dealer certificate). Copies of these duly certified documents specified in this procurement documentation must be included by the participant in his proposal.

# 10. REQUIREMENTS TO THE QUANTITY, PACKAGING, PLACE AND TERM (FREQUENCY) OF DELIVERY

1. Ball valve with a manual mechanical gearbox with a set of mating flanges, fasteners and a swivel plug 20" #600 in the amount of -2 sets.
2. Flanged Check Valve 20" #600 -1 pc
3. Two flanged butterfly valves with a set of mating flanges and fasteners 28" #150 in the amount of -2 pcs.
4. Double blocking fitting with 3/4" #600 valve in the amount of -4 sets.
5. Rising stem wedge gate valve with set of mating flanges, fasteners 2" #600 in the amount of -1 set
6. Valve with set of mating flanges, fasteners 2" #600 in the amount of -1 set
7. Two flanged butterfly valves 20" #150 in the amount of -1 pc.

Delivery time; until 09/20/2022.

Wagon delivery / Container delivery: DAP - railway. Art. Kengsoy (station code - 732602), SJSRC "Uzbekiston Temir Yullari"

Transport supply: DAP - Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan village, 180300

## 11. REQUIREMENTS FOR THE FORM OF INFORMATION TO BE SUBMITTED

Textual information (description, drawings, diagrams) must be provided in Russian and / or English, in paper and electronic form (1 copy).

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

