



"APPROVE "

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



TECHNICAL ASSIGNMENT
for purchasing of pipeline fittings for
for the needs of Shurtan GCC, LLC

1. GENERAL INFORMATION

1.1 NAME

Pipeline fittings.

1.2 Basis and purpose of purchasing of goods

Basis: Annual application for 2022.

Purpose: Pipeline fittings are used on the new operating projects and to replace installed (existing) elbows, tees, reducers, flanges (hereinafter referred to as pipeline fittings) due to the expiration of their service life.

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

The delivered goods shall be new, produced not earlier than 2022, not used, and not repaired.

2. SCOPE OF USE

Pipeline connectors are necessary connection elements for the pipeline, which serve for a smooth transition of the direction of pipes during the installation process by welding of the same type of pipes, and used to replace existing pipelines and install new pipelines of process units.

3. TERMS OF USE

3.1 General operating conditions

Pipeline connectors are used for pipes of various purposes, with designed pressure up to 16 MPa and temperature from minus 70 ° C to plus 450 ° C in accordance with the design and construction documentation, based on the operating terms of use.

Operating medium: steam (saturated and dry), condensate vapors, hydrocarbons, hot gases.

4. TECHNICAL REQUIREMENTS

4.1 Basic technical requirements

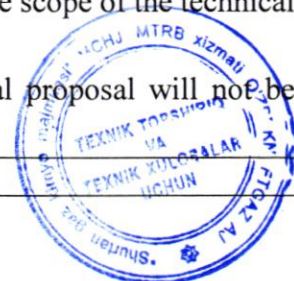
The supplied pipeline connectors (hereinafter referred to as the Goods) shall be manufactured in accordance with the material and standards specified in item 10. In case of presenting of the products manufactured on the basis of analogs of materials and standards, it is necessary to provide a substantiated document substantiating the analogy. All internal and external surfaces of the connecting parts of pipelines specified in paragraph 10 must be covered with chemical for anti-corrosion protection. All ends of the fittings must be machined (to be beveled).

The following documents shall be submitted in the technical and commercial proposal:

- The Participant, as part of his application of the established form, shall indicate by position the manufacturer of the Goods, the country of manufacture, and also submit documents issued directly by the manufacturer of the Goods, certifying the dealer's authority of the Participant or a letter confirming the readiness of the manufacturer of the Goods to deliver in accordance with the Technical Assignment (TA);
- The supplier shall provide with the manufacturer's quality certificates;
- Together with the proposal the supplier obliged to provide with construction drawing with indication of dimensions, materials of pipeline fittings, special technical requirements in accordance with section 10.
- The participant shall submit a technical proposal (all documentation) in Russian or English.
- The supplier is obliged to provide with the manufacturer's form, where specified the terms of implementation of guarantee;
- The supplier shall provide with a quality guarantee for the goods in accordance with the manufacturer's guarantee;
- The supplier shall provide with a list of the companies that use the pipe fittings;
- The supplier shall indicate open access information about the manufacturer's company (company website);
- The supplier shall indicate the place and country of the manufactured product in the scope of the technical proposal.

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

4.2 Marking requirements



Depending on dimension-type, size and manufacturer, the marking can be applied by means of a sticker, embossing or paint. Regardless of the method of application, it shall contain the following information:

- dimensions (diameters - wall thicknesses) according to the transition legend
- steel grade
- standard number
- manufacturer's name or trade mark

4.3 Size and packaging requirements

Packaging shall provide the goods with safekeeping during transportation, handling and movement of goods to the place of their installation. Packaging shall comply with the requirements of state standards of the Republic of Uzbekistan and internationally accepted standards. The packaging shall strictly comply with the product labeling.

5. REQUIREMENTS AS PER RULES FOR HANDOVER AND ACCEPTANCE

5.1 Handover and acceptance procedure

Acceptance and incoming control of goods for conformity in quantity, quality and dimensions is carried out at the Customer's warehouse. In the event of a discrepancy between the delivered goods and the ordered specification or if the goods have not passed the incoming quality control, the Supplier is obliged to replace it within the period specified in the supply contract. The transport costs for the replacement of the goods shall be borne by the Supplier of the goods.

5.2 Requirements for handover of technical and other documents to the customer during supply of the equipment

5.2.1. Technical documentation shall be in Russian.

5.2.2. During delivery, the Supplier shall submit the following documents confirming the compliance of the products offered by him with the established requirements:

- the manufacturer's quality certificates.
- certificates of materials indicating chemical analysis and mechanical characteristics.
- the results of visual inspection;
- it is necessary to provide an inspection report for quality control of pipeline fittings in the process of manufacturing of equipment at manufacturing plants.
- the results of checking of dimensions;
- the results of hydrostatic tests;
- a certificate confirming the originality of the supplied products;
- the origin of the Goods indicating the name of the Buyer, the place and country of the manufactured product in the scope of the technical proposal.
- a manufacturer's certificate of conformity.

6. TRANSPORTATION REQUIREMENTS

Transportation conditions shall ensure the integrity of the product; overall dimensions shall be based on possibility of transportation to the recipient's warehouse.

Packaging shall ensure the complete safety of the cargo from all kinds of damage and spoilage, precipitation, water, pollution, vibration during transportation and delivery, taking into account possible transshipment and long-term storage.

The cost of containers, packaging, labeling shall be included in the price of the product. Containers cannot be returned.

The Supplier is obliged to deliver the Goods to the Buyer's warehouse.

7. STORAGE REQUIREMENTS

Storage of goods must be carried out in accordance with the "Instruction for the acceptance, inspection and storage of pipeline fittings" of the manufacturer.

8. SCOPE AND / OR DURATION OF WARRANTIES

The supplier is obliged to provide a document on the manufacturer's form, where the terms of implementation of a guarantee is indicated.



The supplier shall provide a quality guarantee for the goods in accordance with the manufacturer's guarantee. The warranty period of operation shall be at least 12 months from the date of putting the spare parts into operation or 18 months from the moment the fittings arrive at the Customer's warehouse. If the Supplier has delivered products that do not comply with the terms of the contract, the requirements of the standard and the quality of the products is not confirmed by an appropriate quality document, the Supplier is obliged to replace it with products of proper quality within the period specified in the contract.

9. SAFETY REQUIREMENTS

The goods must meet the safety requirements during storage, transportation and operation established by the legislation of the Republic of Uzbekistan. General requirements for safety during operation of the unit shall be given in special sections of the operation manual. The goods must comply with international quality and environmental safety requirements and have quality certificates ISO 9001 or ISO 14001.

10. REQUIREMENTS FOR THE QUANTITY, COMPLETING, PLACE AND TIME (PERIODICITY) OF DELIVERY

Quantity and procurement				
P / p No.	Name	Standard / Material	Unit	Qty.
ELBOWS.				
1	ELBOW. 1/4". Отвод. 90°	90° ELBOW CLASS 3000 Ib. Standard: ASME B 16.11. S.W. Material: A-312-GRTR-347	pcs.	20
2	ELBOW. 1" Отвод 90°	90° LR ELBOW PIPE SCH 160. Standard: BW ASME 16.9, BW. Material: A 234/WP 11.	pcs.	6
3	ELBOW. 1.1/2" Отвод 90°	90° LR ELBOW. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	8
4	ELBOW. 2" Отвод 90°	90° LR ELBOW 2". SCH80. Standard: ASME/ANSI B 16.9, BW. Material: A 234 WPB.	pcs.	56
5	ELBOW. 2" Отвод 90°	90° LR ELBOW. PIPE SCH STD. Standard: ASME/ANSI B16.9. BW. Material: A182-F304.	pcs.	6
6	ELBOW. 3" Отвод 45°	45° LR ELBOW 3". SCH80. Standard: ASME/ANSI B16.9. BW. Material: A 234 WPB	pcs.	15
7	ELBOW. 3" Отвод 90°	90° LR ELBOW 3". SCH80. Standard::ASME/ANSI B16.9. BW. Material: A 234 WPB.	pcs.	36
8	ELBOW. 3" Отвод 90°	90° LR ELBOW. PIPE SCH STD. Standard: ASME/ANSI B16.9. BW. Material: A182-F304.	pcs.	6
9	ELBOW. 4" Отвод 45°	45° LR ELBOW 4". SCH80. Standard: ASME/ANSI B16.9. BW. Material: A234 WPB	pcs.	10
10	ELBOW. 4" Отвод 90°	90° LR ELBOW. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW Material: A 234-WPB.	pcs.	46



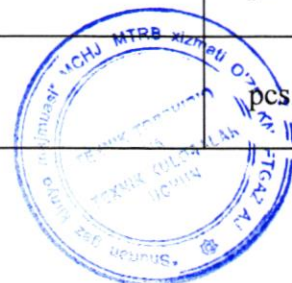
11	ELBOW. 6" Отвод 90°	90° LR ELBOW 6". SCH 60. Standard: ASME/ANSI B16.9. BW. Material: A 234 WPB.	pcs.	20
12	ELBOW. 6" Отвод 90°	90° LR ELBOW. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	32
13	ELBOW. 8" Отвод 90°	90° LR ELBOW 8". SCH 60. Standard: ASME/ANSI B16.9. BW. Material: A234 WPB.	pcs.	20
14	ELBOW. 8" Отвод 90°	90° LR ELBOW. PIPE SCH80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	11
15	ELBOW. 10" Отвод 90°	90° LR ELBOW. PIPE SCH60. Standard:: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	28
16	ELBOW. 12" Отвод 45°	90° LR ELBOW. PIPE SCH60. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	36
17	ELBOW. 14" Отвод 90°	45° LR ELBOW 12". SCH 60. Standard: ASME/ANSI B16.9. BW. Material: A234 WPB	pcs.	4
18	ELBOW. 14" Отвод 90°	90° LR ELBOW 14". SCH60. Standard: ASME/ANSI B16.9. BW. Material: A234 WPB	pcs.	8
19	ELBOW. 16" Отвод 90°	90° LR ELBOW. PIPE SCH80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	16
20	ELBOW. 18" Отвод 90°	90° LR ELBOW. PIPE SCH60. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	16
21	ELBOW. 20" Отвод 90°	90° LR ELBOW. PIPE SCH60. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	14
22	ELBOW. 1/4".Отвод.90°	90° LR ELBOW 20". SCH60. Standard: ASME/ANSI B16.9. BW. Material: A 234 WPB.	pcs.	14
Flanges.				
1	Blind Flange. Фланец глухой 1"	Standard: ANSI/ASME B 16.5. #150. Material: A182-F304. BW,RF (STD)	pcs.	6
2	Blind Flange. Фланец глухой 2"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD). Material: A182-F304.	pcs.	6
3	Фланец. WELDING NECK FLANGE 2"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD). Material: A105.	pcs.	20
4	Фланец. WELDING NECK FLANGE 2"	Standard: ANSI/ASME B 16.5. #300, BW, RF (STD). Material: A105.	pcs.	20
5	Фланец. WELDING NECK FLANGE 2"	Standard: ANSI/ASME B 16.5. #600, BW, RF (STD). Material: A105.	pcs.	20



6	Фланец. WELDING NECK FLANGE 3"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A182-F304.	pcs.	4
7	Butt weld flange (collar)	3"#150. Standard: ASME/ANSI B16.5. BW, RF (STD). Material: A105	pcs.	10
8	Фланец. WELDING NECK FLANGE 4"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD). Material: A105.	pcs.	18
9	Фланец. WELDING NECK FLANGE 4"	Standard: ANSI/ASME B 16.5. #600, BW, RF (STD). Material: A105.	pcs.	20
10	Фланец. WELDING NECK FLANGE 6"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD). Material: A105.	pcs.	16
11	Фланец. WELDING NECK FLANGE 6"	Standard: ANSI/ASME B 16.5. #600, BW, RF (STD) Material: A105.	pcs.	6
12	Фланец. WELDING NECK FLANGE 8"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A105.	pcs.	16
13	Фланец. WELDING NECK FLANGE 8"	Standard: ANSI/ASME B 16.5. #300, BW, RF (STD) Material: A105.	pcs.	10
14	Фланец. WELDING NECK FLANGE 10"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A105.	pcs.	16
15	Фланец. WELDING NECK FLANGE 12"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A105.	pcs.	18
16	Фланец. WELDING NECK FLANGE 12"	Standard: ANSI/ASME B 16.5. #600, BW, RF (STD) Material: A105.	pcs.	16
17	Фланец. WELDING NECK FLANGE 14"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A105.	pcs.	20
18	Фланец. WELDING NECK FLANGE 16"	Standard: ANSI/ASME B 16.5. #150, BW, RF (STD) Material: A105.	pcs.	20
19	Фланец. WELDING NECK FLANGE 20"	Standard: ANSI/ASME B 16.5. #600, BW, RF (STD) Material: A105.	pcs.	2
20	Фланец. WELDING NECK FLANGE 28"	Standard: ANSI/ASME B 16.47. Series "B". #150, BW, RF (STD) Material: SA182-F304.	pcs.	6
TEES.				
1	TEE. Тройник 12mm x 12mm x 12mm	TEE. CLASS 6000 psi (420 kg/sm ²). Connection type: S-LOK. Material: 316SS.	pcs.	20
2	TEE. Тройник 1/4"x1/4" x1/4"	TEE. CLASS 3000. Standard: ANSI / ASME B16.11.S. W. Material: A-312-GR TR-347.	pcs.	20



3	TEE. Тройник 1/2"x1/2" x1/2"	TEE. CLASS 6000 psi (420 kg/sm ²). Connection type: S-LOK. Material: 316SS.	pcs.	20
4	TEE. Тройник 2"x2"x2"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	8
5	TEE. Тройник 3"x3"x3"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	14
6	TEE. Тройник 4"x4"x3"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB	pcs.	4
7	TEE. Тройник 4"x4"x4"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	12
8	TEE. Тройник 6"x6"x6"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	10
9	TEE. Тройник 8"x8"x8"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	14
10	TEE. Тройник 12"x12"x6"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Sulfur content max.0.015% Material: A 234-WPB.	pcs.	2
11	TEE. Тройник 14"x14"x14"	TEE. PIPE SCH 80. Standard: ANSI / ASME B 16.9, BW. Material: A 234-WPB.	pcs.	8
12	TEE. Тройник 20"x20"x20"	PIPE SCH60. SCH60. Standard: ASME/ANSI B16.9. BW. Material: A234 WPB	pcs.	2
Reducers.				
1	Reducer ECC / Переходник 2"x 3"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	3
2	Reducer ECC / Переходник 2"x 4"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	6
3	Reducer ECC / Переходник 3"x 4"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	4
4	Reducer ECC / Переходник 3"x 6"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	3
5	Reducer ECC / Переходник 4"x 6"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	4
6	Reducer ECC / Переходник 4"x 8"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 – WPB.	pcs.	3



7	Reducer ECC / Переходник 6"x 8"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 WPB.	pcs.	6
8	Concentric reducer. 14" x 12".	14"x12". PIPE SCH60. Standard: ASME/ANSI B16.9, BW. Material: A 234 WPB	pcs.	10
9	Concentric reducer. 14" x 12"	PIPE SCH 80. Standard: ANSI/ASME B 16.9, BW. Material: A 234 WPB.	pcs.	14
10	Eccentric reducer 12" x 8"	12"x8". PIPE SCH60. Standard: ASME/ANSI B 16.9, BW. Material: A 234 WPB.	pcs.	4
11	Eccentric reducer 12 "x 6"	12"x6". PIPE SCH60. Standard: ASME/ANSI B16.9. BW. Material: A 234 WPB	pcs.	4
12	Concentric reducer. 12" x 6"	12"x6". PIPE SCH60. Standard: ASME/ANSI B16.9. BW. Material: A 234 WPB	pcs.	4
13	Concentric reducer. 20" x 16"	20"x16". PIPE SCH60. Standard: ASME/ANSI B16.9, BW. Material: A234 WPB	pcs.	4

Threaded coupling.

1	3/4" Union. Coupling American threaded connection.	Threaded Union Dimensions. CLASS 3000. Standard: ASME B 16.11. Material: ASTM A105N	pcs.	20
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Pipes.

1	Large diameter stainless steel pipe	Length: 3000mm, Outside diameter: 711.2mm. Thickness: 7.92mm. Material: A-312 / TP304	Running meter	3
2	Pipe Seamless steel 1/4". Импульсная трубка 1/4"	Seamless steel - A-312-GR TR-347 H O.D.13,7x1,65 AW.	Running meter	40
3	Monel tube	Inner diameter: 5/16 "(8.5mm). Outside diameter: 1/2" (12.7mm). Material: Monel; Operating pressure 210 kgs / cm2;	Running meter	100

The quality of the goods shall meet the requirements of the technical parameters given in item 10 and be confirmed by a certificate of conformity or a passport issued at the manufacturer's plant.

Delivery time: 60 working days after drawing up the contract.

Terms of delivery according to the DAP delivery basis. Single delivery in full volume according to item 10 of the technical assignment.

Delivery terms:

DAP – the Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300.

11. ADDITIONAL (OTHER) REQUIREMENTS

During delivery, the Supplier shall submit documents confirming the compliance of the products offered by him with the established requirements:

- the supplier is also responsible for compliance with technical parameters, quality and quantity;



In case of non-compliance of the Products with the quality requirements, the Products are subject to return, and **all costs for its purchase and delivery are borne by the Supplier.**

12. REQUIREMENT FOR THE FORM OF THE SUBMITTED INFORMATION

Text information shall be provided in Russian and / or English, in paper and electronic form (1 copy).

13. LIST OF ACCEPTED ABBREVIATIONS

No	Abbreviation	Explanation of abbreviation
1	ANSI	American National Standards Institute
2	ASME	American Society of Mechanical Engineers

** Note: The developer is responsible for the correct filling-up and incomplete items.*

Developers:

Deputy Chief Mechanical engineer:

Engineer of Chief Mechanical Engineer Department:

Lead engineer of The Material and

technical resource management service:

Senior mechanical engineer of Ethylene production shop:


Senior mechanical engineer of Utility shop:

Mechanical engineer of Polyethylene production shop:

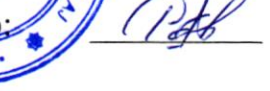
 M. Salaev

 U. Kuvatov

 U. Khidirov

 F. Nurmatov

 E. Goipov

 G. Rahmonov

