



Tender Documents

Name of the Commercial Public Tender (hereinafter referred to as "**Tender**"):

„Compressor unit for ZPS Závod - Prieskum“

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A. INSTRUCTIONS FOR BIDDERS

A.1 GENERAL INSTRUCTIONS

A.1.1 Identification of the Contracting Authority:

Name of the organization: **NAFTA a.s.**
COMPANY ID No.: 36 286 192
VAT ID No.: SK2022146599
Company registered office: Votrubova 1, 821 09 Bratislava
Registered in: Commercial Register of the District Court Bratislava I,
Section Sa, File No. 4837/B
Country: the Slovak Republic
Correspondence address: NAFTA a.s.
Votrubova 1
821 09 Bratislava
Slovakia
Contact person: Jaroslav Kuník
E-mail: compressor.zps.zavod.prieskum@nafta.sk
Web sites: www.nafta.sk

A.1.2 Subject of the Tender:

The subject of the Tender is delivery of compressor unit in accordance with technical specification (paragraph C of this document) and conditions set out in this document.

A.1.3 Type of contract

Purchase Contract.

A.1.4 Place and date of delivery

The place of delivery is the gas treatment site of NAFTA a.s., ZPS Závod (Incoterms 2010 – DDP Závod).

Requested date of delivery: 11/2016

Commissioning and start-up: 05/2017

A.1.5 Evaluation of proposals

The Contracting Authority reserves the right to restrict the number of Bidders after proposals are submitted and to invite the Bidders determined in this way to individual negotiations about the contract terms and conditions.

The Contracting Authority reserves the right to negotiate the proposal with the Bidder in several consecutive rounds with the possibility to invite Bidders to submit the updated price proposal after each round of negotiations.

In case of several rounds of negotiations, the Contracting Authority shall notify bidders in advance that the price proposal they are going to submit shall be the final proposal.

A.1.6 Explanation and communication

Any communication and provision of information among the Contracting Authority and Bidders shall be carried out in writing or electronically. Address for written communication is provided in Point A.1.1 and e-mail address is compressor.zps.zavod.prieskum@nafta.sk.

A.1.7 Time schedule of the Tender:

Action:	Date:
Notification of the Tender on www.nafta.sk	24.05.2016
Expression of the Bidder's interest to participate in the Tender	31.05.2016
Explanation of the Tender conditions	06.06.2016
Submission of the price proposals	10.06.2016
Evaluation of the 1 st round of the Tender	17.06.2016
eAuction – evaluation of the 2 nd round of the Tender	23.06.2016
Negotiation of the price proposals	30.06.2016
Expected time of the Purchase contract's signing	29.07.2016

Note: the above mentioned deadlines are only expected and these can be updated by the Contracting Authority anytime during the tender procedure.

A.2 INSTRUCTIONS FOR THE PREPARATION OF THE PROPOSAL

A.2.1 Content of the proposal

The submitted proposal shall contain the documents in the following order:

1. Name and precise address of the Bidder, Company ID and contact data of the person authorized to act on behalf of the Bidder in contractual relationships for further negotiation about the terms and conditions.
2. Cover letter with declaration of the fixed price and warranty period (filled form of Annex No.1).
3. Documents in accordance with paragraph B.1 Economical and financial competency.
4. Documents in accordance with paragraph B.2 Technical competency.
5. Proposal divided into following groups:
 - a) Compressor unit (complete package);
 - b) Spare parts for start-up;
 - c) Spare parts for 2 years operation (for compressor and control system) including special tools for maintenance works;
 - d) Transport costs to delivery place;
 - e) Assumed price for precommissioning, commissioning, start-up, complete testing, and putting into operation (standard man day costs + assumed man days for each activity – machinery, electrical, control system...);
 - f) Operating costs (OPEX) for 1 year operation in design point (8.760 hours), (please also look at a table no. 1.3. in Annex 1).
6. Required information to proposal:
 - a) Driver
 - requirements for electric power;
 - influence (high frequency) to public electric grid;
 - Performance curves (RPM, output power, efficiency...);
 - initial power load;
 - max. RPM and max. power for the max. operational point;
 - min. allowable RPM and power for the min. operational point.
 - b) Compressor
 - Performance curve characteristic: **Q versus P1 (ths. Sm³/day) for P2 = 4 MPa abs.**

- Power requirements;
- c) Generally
- operation range according to the Annex No. 1;
 - P&ID with description of components;
 - Block diagram with the description of the control system connection, including the master system;
 - basic dimension layout with description and location of components (not typical drawings only);
 - life time between general overhauls (approximately cost of the overhaul of the whole compressor unit);
 - period (working hours) and duration (hours) of regular maintenance each of part of the whole compressor unit;
 - list of spare parts for start-up and spare parts for 2 years operation (for the whole compressor unit including the control system);
 - warranty and after-warranty service for the compressor unit:
 - ✓ location of the nearest service provider;
 - ✓ time necessary from reporting to the arrival of the technicians to the locality;
 - ✓ time necessary for the arrival of the technicians at emergencies ;
 - ✓ price list of service works;
 - ✓ oil consumption - penetration of the process gas in g/1000 m³.
 - documentation of the Extinguishing system and the Fire detection system according to EU directives mentioned in paragraph C.1 point 11;
- d) Noise Emissions.

Note: The level of acoustic output of the unit LwA /dB (A)/. Please define these data in the 63 Hz - 8 000 Hz freq. band (the octave band).

7. The declaration of the Bidder that it agrees with the Tender conditions determined by the Contracting Authority, signed by a person authorized to act on behalf of the Bidder;
8. Declaration of the Bidder on veracity and completeness of all papers, documents, and data mentioned in the proposal;
9. The draft of the Purchase Contract filled in and initialed by the Bidder which is an inseparable part of the Tender Documents, to express consent with its terms and conditions while the contract approval shall be subject to the approval process of the Contracting Authority.

A.2.2 Execution of the proposal

The proposal shall be executed for the entire subject of the Tender in the Slovak or Czech or English language.

The proposal shall be executed in writing using a typewriter, computer printer, a pen with indelible ink etc.

The proposal shall be bound in one piece without a possibility of arbitrary replacement of individual parts.

The proposal shall be signed by the statutory body of the Bidder in compliance with the extract from the Commercial Register or the person authorized for such acting. The original of the document proving authorization of the person to sign the proposal shall be a part of the proposal in such case.

A.2.3 Validity of the proposal

The minimum validity of the proposal shall be by **31st December 2016**.

A.3 SUBMISSION OF PROPOSALS

A.3.1 Designation of covers with price proposals

Bidders will submit the proposal in the paper form in the sealed envelope as well as in the electronic form (in .pdf format) on the memory device (CD, USB stick) on the post address of the Contracting Authority. The envelope shall be clearly designated with an inscription **TENDER - PRICE PROPOSAL - DO NOT OPEN** including a Tender slogan: **“Compressor unit for ZPS Závod - Prieskum”** while stating the registered office of the Contracting Authority (pursuant to Point A.1.1 of these Tender Documents) and registered office of the Bidder. The proposal has to be submitted to the address provided in Point A.3.2 of these Tender Documents as follows:

A.3.2 Place and date of the proposal submission

The proposals have to be delivered to the address:

NAFTA a. s.

Filling room

900 68 Plavecký Štvrtok 900, Slovak Republic

The proposal delivered to another address of the Contracting Authority should be deemed as undelivered.

Deadline for the proposal's submission:

The deadline shall expire: **10th June 2016 at 12:00 p.m.**

B. CONDITIONS OF PARTICIPATION

B.1 ECONOMIC AND FINANCIAL COMPETENCY

Economic and financial competencies are being proved by the Bidder by submission of the following documents and providing the following information:

1. An extract from the Commercial Register (presents a legal entity – enterpriser, natural person – entrepreneur entered in the Commercial Register),
2. Financial situation and declaration of the Bidder – positive reference of the bank institution,
3. Declaration of the statutory representative of the Bidder that no bankruptcy order was issued as at the date of the Tender calling, that it is not in liquidation and has no tax arrears registered.

B.2 TECHNICAL COMPETENCY

Technical competency shall be proved by the reference list of similar applications in past 3 years with presenting of company name for which the project was realized, locality, and year of putting into operation – notice the information about the use or not of the equipment according to Annex 1 Table 1.2 .

C. TECHNICAL SPECIFICATION

C.1 COMPRESSOR UNIT

1. Package

Each equipment necessary for operation of compressor unit should be installed on the one (1) skid with noise cover enclosure, which consists of two spaces (room for compressor and room for non-ex-proof electrical devices). Noise enclosure has to be ventilated.

2. Driver

- electric engine
 - VFD control unit
 - ✓ Protection IP 55
 - ✓ EMC filter for industrial grid
 - ✓ Incoming line reactor
 - ✓ VFD has to be certified together with electric motor according to EN 60079
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3. Compressor

- it will be used for withdrawal of natural gas with content up to 5mg H₂S/Sm³ of gas and 2 % vol.CO₂/Sm³ of gas
- compressor design preferable for withdrawal in serial mode (optimal efficiency according operation points)
- vent silencer 75 dBa 20 m from nozzle
- meets max. noise 40 dBa in the distance 300m from compressor unit (due of near municipality)
- suction ball valve, discharge ball valve, blowdown valve-have to be automatic with emergency shutdown function, oil heater, manual blow down valve,

4. Control system

Supply requirements:

- control system of PLC type - preferred manufacturer Allen-Bradley
- Cabinet located inside the other room - not in the same room as compressor. Rooms have to be separated with gas-proof barrier.
- HMI panel and control buttons for controlling of compressor unit placed on the cabinet door in English, Slovak language.
- power supply of control system 24VDC
- communication to remote control system (DCS / SCADA) via serial port RS232/RS485 with Modbus RTU or DF1 protocol support or Ethernet 10/100 TP port with Modbus TCP or Ethernet/IP protocol support
- second communication port RS232 or USB for maintenance/programming purpose

5. Gas coolers

- Gas/air design, max noise 75 dBa fan 1 m from outside side surface. Design for constant process discharge gas temperature (for summer and winter operation).
- meets max. noise. 40 dBa in the distance 300m from compressor unit (due of near municipality)
- power requirements

6. By-pass system

- automatic by pass system
- safety blow down system

7. Oil penetration

- The gas compressor has to be equipped by the follows scrubbers:
 - Oil scrubber between the first and second stage
 - Discharge scrubber with coalescing cartridges. This scrubber has to be designed for removing 99% of the entrained mist particles 10 microns and larger in size at the design operating condition

8. Special tools

- List of special tools if necessary (say alignment etc.)

9. Outdoor enclosure

- outdoor enclosure for 75 dBa one (1) meter from enclosure wall

10. Gas detection system

- Outputs in to PLC
- Sensors – we prefer providers - Sieger, Siemens, or MSA

11. Extinguishing system and Fire detection system

- EN 12094 1-13
- EN 54
- TPED and directive 2010/35/EU
- All detector must be compatible with control panel (we prefer Siemens)
- All components must have CPR certificate with Declaration of regulation 305/2011/EU from notified body
- Installed system (product) must be registered in Slovak office according to Slovak legislative §11d law no. 314/2001
- Documentation:
 - project your actual fixed fire extinguishing system
 - operating manual in Slovak language
 - operational logbook
 - certificate of inspection and expert examination,
 - warranty card
 - certificate of product
- In case if you will not offer option for extinguishing system it is necessary to prepare your control system (PLC...) for connection of our fire detection and extinguishing system.

12. A copy of a document verifying the correlation properties of the stable extinguishing equipment with the technical standards or technical specifications. All electrical equipment must have a certificate of conformity for the complete package in accordance with European standards

- Technical equipment installed in ZONE 2, must have certificate in accordance with ATEX 92/1999, 765/2008 from notified body.

13. The compressor unit has to be regulated in compliance on the suction pressure.

Note: more precise technical data are listed in Annex No. 2. and No. 3.

C.2 SPECIFICATION AND TIME SCHEDULE OF TECHNICAL DOCUMENTATION SUPPLY

The total package price has to be including 1 hard copy and 3 CD of below mentioned documentation.

1. Documentation supply is required to 3 months from the date of Contract signing:
 - a) Drawing documentation for mechanical installation;
 - b) Layout of electric connection for all unit (230V);
 - c) P&ID diagram;
2. Documentation accompanied the compressor package supply:
 - a) Manual for the whole unit, Control System, Cooler, Extinguishing system and Fire detection system;
 - b) Catalogue of Spare Parts;
 - c) Certificates of Conformity for whole package according to European directives:
 - Low Voltage 2006/95/CE

- Electromagnetic Compatibility 2004/108/CE
 - Pressure Equipment 97/23/CE
 - Machinery 2006/42/CE
 - Equipment explosive Atmospheres 1994/9/CE
 - Extinguishing system and Fire detection system – according the point C1.11
3. Details for shown certificates are as follow:
- a) Material certificates;
 - b) Pressure equipment – certificate, drawings, pressure testing protocols, weld testing protocols, materials, compressor testing protocol;
 - c) Copies of EC – type certificates of each delivered electric equipment.

D. PRICE PROPOSAL, INVOICING, WARRANTY

D.1 METHOD FOR PRICE CALCULATION

1. The Bidder shall propose the Price for the subject of the Tender **in EUR excl. VAT**,
2. The Bidder shall include to the Price all and any costs incurred in regard to the delivery of the subject of the Tender.
3. The Price mentioned in the proposal shall cover all costs related to the subject of the Tender – Annex No. 1 shall contain the total price for the subject of the Tender, i.e. the summary of all items including all other costs of the Bidder.

D.2 INVOICING

The Contracting Authority shall not provide advance payments.

The invoice maturity is within 60 days from the date of the invoice delivery to the registered office of the Contracting Authority.

D.3 WARRANTY

We require the guarantee for the whole package and all supplied components 18 months since putting into operation / 24 months from the date of supply according to the hand over protocol. The Guarantor of the whole package (including subdelivered parts) has to be the company submitting the proposal.

E. SUPPLEMENTARY CONDITIONS AND PROVISIONS

1. The Contracting Authority shall reserve the right to change the Tender conditions or to cancel the Tender anytime. It shall inform the Bidders on these facts publishing a notice on the internet site of the Contracting Authority www.nafta.sk.
2. The Bidder shall not be entitled to compensation of costs related to the participation in the Tender.
3. Within the proposal evaluation the Contracting Authority shall reserve the right to ask the Bidders for explanation of the proposal or to verify some data and facts mentioned in the proposal.
4. No contractual relationship shall arise by the Tender closing and announcement of the Tender result.
5. The proposals shall not be returned to the bidders but they remain archived by the Contracting Authority as a part of the tender documentation.
6. The Contracting Authority shall be entitled to select a proposal which is the most suitable while it shall not be obliged to inform on reasons of its decision. It shall also be entitled to refuse all submitted proposals.

7. We require submitting the Proposal that is in accordance with requirements in this Tender. If the Proposal does not include the required information, it will be deemed as the disability to fulfill the delivery in accordance with the delivery conditions.

F. LIST OF ANNEXES

Annex No. 1

Cover letter for Bidders

Annex No. 2

Technical specification for Závod – Prieskum project

Annex No. 3

Operation points

Annex No. 4

Gas composition

Annex No. 5

Purchase Contract draft

Annex No. 1)

COVER LETTER FOR BIDDERS
Compressor unit for ZPS Závod - Prieskum

A. Bidder:

Title:

Address:

COMPANY ID No.:

Tax ID No.:

Authorized representative of the Bidder

Tel.: Fax.

B. After studying the Tender Documents the delivery of the required range is being proposed:

1. Fixed unit prices amounting to:

Table 1.1.:

Item's description	Price in EUR / pc	Requested number of pc	Price for requested amount in EUR excl. VAT
1 pc of new (no reconditioned) compressor unit (package on one skid) supply in accordance with defined scope of supply and technical parameters shown in this request.			
Spare parts for start-up			
Spare parts for 2 years operation (for compressor and control system) including special tools for maintenance works			
Assumed price for precommissioning, commissioning, start-up, complete testing, and putting into operation (standard man day costs + assumed man days for each activity)			
Delivery DDP ZPS Závod - Prieskum			
Total price for the delivery (DDP ZPS Závod - Prieskum)			

Table 1.2.:

OPTIONS	Price in EUR / pc	Requested number of pc	Price for requested amount in EUR excl. VAT
Gas and fire detection system			
Extinguishing system (CO ₂ or N ₂ system) (or if you use any other solution for your compressor units (except Extinguishing system, please send price for your system and describe it in your offer)			
Total price for options			

Table 1.3.:

OPEX	Unit (Pc. liters...)	Quantity	Periodicity (for example how many times per year, or after how many operation hours)	costs for		TOTAL price	Note
				material	works		
common periodic service of compressor (for example check valves, check medium fillings...)							
general overhaul of compressor							
oil change out							please here write € per 1 liter and type of oil too
Operating costs for 1 year operation in design point (8.760 hours)							
common periodic service of electric engine							
Nearest authorized service							Nearest service from Slovakia (which country, or city...)

2. Within the delivery time:

3. With warranty period of: months

The validity of this proposal is set by 31st December 2016.

We concurrently hereby confirm that the data provided in the remaining annexes to the proposal shall serve as binding documents for evaluation of our proposal.

.....
Seal and signature of the Bidder representative

Annex No. 2)

TECHNICAL SPECIFICATION

Item	Description	Value	Unit	Note
1	DRIVER			
	Electric motor	1	pcs.	
	Ambient temperature	-20 to +35	°C	
2	COMPRESSOR	1	pcs.	
	Design point			
	suction pressure P1	2,5	MPa abs.	
	discharge pressure P2	4,0	MPa abs.	
	gas flow Q	45 000	Sm ³ /day	Wet gas
	suction temperature T1	20	deg.C	
	discharge temperature T2	40	deg.C	
	Tamb	30	deg.C	
	Operation range			
	P1=1,5 – 3,5 MPa abs.			
	P2= 4,0 MPa abs.			
	T1 = -10 to + 35°C			
	T2 max = 45°C			After cooling
	Tamb = -20 to 35°C			
	Gas flow Q	20 000 - 55 000	Sm ³ /day	power regulation by the VFD
3	PACKAGE REQUIREMENTS			
	Installation in outdoor design	75	dBa	1 m from outside enclosure wall
	One skid design – preferred with 2 separated cabins			1 for not hazardous area, 1 for compressor unit.
	Design for Zone 2			
	Local unit control panel			Allen Bradley
	Gas coolers			acc. to gas discharge parameters
	Package voltage	400/230V		

Annex No. 3)

OPERATING POINTS

Typical operating points for withdrawal	DP	1	2	3	Unit	Note
suction pressure P1	2,5	3,5	2,5	1,5	MPa abs.	
discharge pressure P2	4,0	4,0	4,0	4,0	MPa abs.	
gas flow Q	45 000	55 000	45 000	20 000	Sm ³ /day	15 °C, 101 325 Pa, dry gas
suction temperature T1	20	20	20	20	deg. C	

Annex No. 4)

GAS COMPOSITION

Natural gas component	Ret. time	Un Mol%	Mol%	Vol%
Carbondioxide	26,90	1,934	1,925	1,919
Nitrogen	23,75	0,290	0,289	0,289
Methane	24,19	94,783	94,324	94,396
Ethane	4,49	2,137	2,127	2,115
Propane	6,28	0,579	0,577	0,568
n-Butane	10,38	0,153	0,153	0,148
i-Butane	8,60	0,104	0,103	0,100
n-Pentane	18,92	0,066	0,065	0,061
i-Pentane	16,23	0,069	0,069	0,065
Neopentane	11,29	0,003	0,002	0,002
Hexane/C6+	5,58	0,369	0,368	0,337
Total	0,00	100,487	100,000	100,000

Real density of gas	0,7426 kg/m ³	
Real relative density of gas	0,6060	
Real inferior cal. value (vol)	34,9614 MJ/m ³	9,7123 kWh/m ³
Real wobble index (superior)	49,7500 MJ/m ³	13,8206 kWh/m ³
Molar weight of mixture	17,5179 g/mol	
Real superior cal. value (vol)	38,7305 MJ/m ³	10,7593 kWh/m ³

Volume of H ₂ S on suction	max. 5 mg/Sm ³
Volume of water on suction	ca. 75 mg/Sm ³ (15°C, 101,325kPa)