

October 31 2021

Ref.: 276219

To: All Tender Participants

Dear Sir / Madam,

Re: Tender No. 049-21 (the "Tender") - Revised Specification & Notice Regarding **Submission Deadline #3**

- 1. Please find attached a **Revised Specification** (which includes all answers to questions submitted to Energy Infrastructures Ltd. (the "Company").
- 2. Accordingly, the Company has decided to extend the Submission Deadline to Wednesday, November 17, 2021 (the "Extended Deadline").
- 3. Thank you for your continued interest in the Tender; we look forward to receiving your bids.

Sincerely,

Talmor

Talmor Sela

Procurement and Engagements Department









PETROLEUM & ENERGY INFRASTRUCTURE LTD.

SPECIFICATION FOR BASKET FILTER & AIR ELIMINATOR

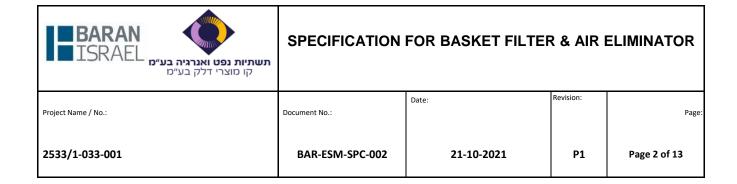
SPEC. No. _____

PEI PROJECT No. 2533

PEI – Engineering Division

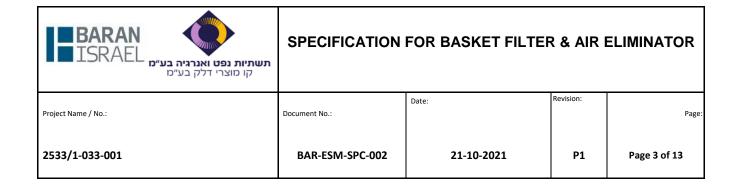
October 2021

| P1 | 27.10.2021 | FOR BID | N.Z. | C.S | |
|------|------------|---------|----------|----------|--------------|
| P0 | 04.08.2020 | FOR BID | N.Z. | C.S | |
| REV. | DATE | ISSUE | PREPARED | APPROVED | CLIENT APP'D |



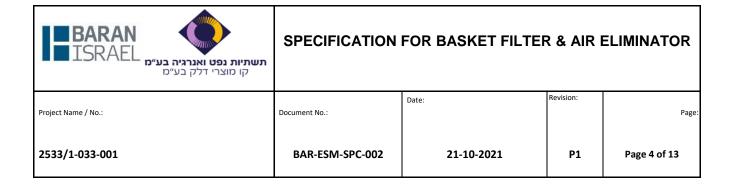
CONTENT

- 1. GENERAL
- 2. DEVIATIONS AND EXCLUSIONS
- 3. DIESEL FUEL PROPERTIES
- 4. SITE CONDITIONS
- 5. TECHNICAL REQUEST
- 6. FLANGE (Class Range)
- 7. MATERIALS:
- 8. PROCESS DATA:
- 9. DIMENTION:
- 10. GENERAL TERMS:
- 11. GUARANTEE:



ATTACHMENTS

- A. BASKET FILTER DATA SHEET
- **B. BILL OF QUANTITIES**



1. **GENERAL**

This document covers the technical requirements for manufacturing, assembly, testing, supply and delivery of basket filter fitted with air eliminator device. The filter shall be operating in Petroleum & Energy Infrastructure LTD. at EHSEL TERMINAL and PRMS.

The filter shall handle commercial diesel fuel described hereafter:

2. DEVIATIONS AND EXCLUSIONS

The Supplier shall identify any requirement for which he is unable to comply and shall list all deviations and exclusions to all requirements in question Unless deviations / exclusions are specifically identified by the Supplier in the bid proposal and agreed by the Client, the Supplier shall be deemed to have confirmed full compliance with all listed requirements.

3. DIESEL FUEL PROPERTIES

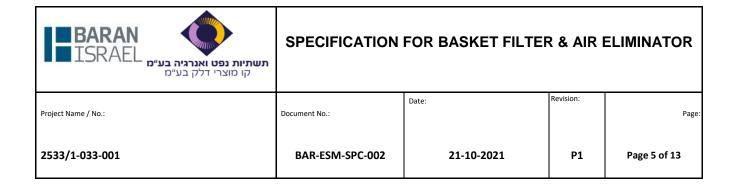
Density 150 C 0.842 Kinematics viscosity (CP) 5

4. SITE CONDITIONS

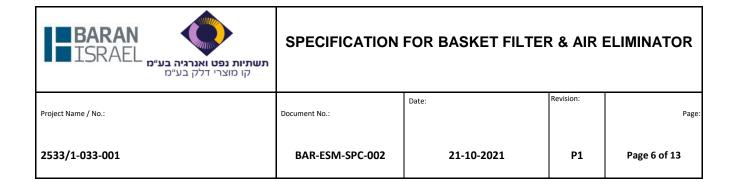
- 4.1 The filter shall be installed outdoor.
- 4.2 Site approximate is about 0-200 m' above sea level.
- 4.3 Ambient temperature varies between 0°C- 45°C.
- 4.4 Relative humidity varies between 15% 90%.
- 4.5 Rainfall around 200-400 mm' / year.
- 4.6 Dusty environment

5. TECHNICAL REQUEST

5.1 The filter is to meet the duty and material requirements of the data sheet



- 5.2 Flange connections are to be according to ANSI B16.5 150# RF, in standard, non offset horizontal nozzle position.
- 5.3 Inlet and outlet nozzles size 6"-10" as per bidder calculations.
- 5.4 Max Differential pressure on clean Basket 200 mbar
- 5.5 Basket: reinforced heavy gauge 316 stainless steel constructions with perforation 40 mesh (420 mu).
- 5.6 Threaded connection is to be according to NPT.
- 5.7 Filter casing to be designed to the latest editions of ASME code, Section VIII, Div. 1 for the rate design condition.
- 5.8 filter will be installed with 0.5" NPT connections for a DPT system (differential pressure transmitter).
- 5.9 Strainer is to be offered with quick opening cover (BLIND FLANGE) with eye bolted, lifting davit and O-Ring seal.
- 5.10 Strainer is to be offered with drain 2" .The strainer shall be fitted with self-supporting legs.
- 5.11 The max length between the offset horizontal nozzles and the bottom legs will be 1100 mm'.
- 5.12 Cover to be provided with an air eliminator device.
- 5.13 Ultrasonic RT tests will be performed as required for welds.
- 5.14 Painting:
- Surface preparation sa 2.5
- Primer Zinc rich epoxy 70 micron thick SSPC. Primer will contain over 80% zinc by weight of the dry film.
- Intermediate tolerant epoxy mastic surface thick at 150 microns minimum, two layers as needed.
- Upper polyurethane oval white 80 micron thick single layer or two separate layers of 40 microns each Ready Made. Hue of upper layers will be white matte, reflective level of about 84%



Total dry thickness – at least 300 microns.
 Manufacture shall provide his detailed painting procedures to pei (with proposal).

6. FLANGE (Class Range):

The filter shall have flanged ends.

Inlet and Outlet connection ends shall be according to 6"-10" ANSI B16.5 150# RF (See paragraph 5.3)

Drain end shall be 2" ANSI 150#, RF.

Vent Connection - AIR ELIMINATOR be according to ½" NPT plugged 3000# Pressure Transmitter be according to ½"NPT plugged. 3000#

7. MATERIALS:

Filter shell Body: CS, A 216 Gr. WCB.

Corr.' Allow: 3 mm.
Basket: S.S 316

Gasket Material: FLEXITALLIC ID plate: Stainless steel.

8. PROCESS DATA:

8.1 ITEM

Max Flow-rate: 500 m3/h @ 45m'.

Temperature operating: varies between 0°C- 50°C.

Design Temperature: 65 °C.

Design pressure: 20 bar.

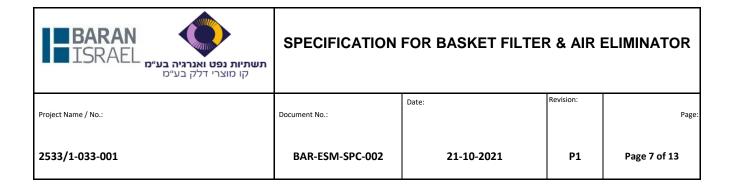
Max Allowable Pressure drop: 200 mbar

8.2 ITEM:

Max Flow-rate: 350 m3/h @ 45m'.

Temperature operating: varies between 0°C- 50°C

Design Temperature: 65 °C.
Design pressure: 20 bar.



Max Allowable Pressure drop: 200 mbar

9. DIMENTION:

9.1ITEM (500 m3/h). See paragraph 5.3.

| Nozzles | Flange | Size | Rating |
|----------------|--------|-----------|--------|
| Inlet | RF | 6" -10" | 150# |
| | | (See | |
| | | paragraph | |
| | | 5.3) | |
| Outlet | RF | 6"-10"" | 150# |
| | | (See | |
| | | paragraph | |
| | | 5.3) | |
| Drain | RF | 2" | 150# |
| DPT | NPT | 1/2" | 3000# |
| Air eliminator | NPT | 1/2" | 3000# |
| unite. | | | |

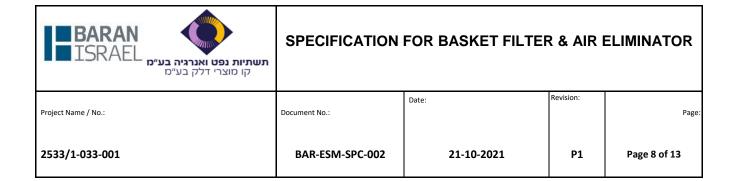
9.2 ITEM (350 m3/h):

| Nozzles | Flange | Size | Rating |
|-----------------------|--------|------|--------|
| Inlet | RF | 12" | 150# |
| Outlet | RF | 12" | 150# |
| Drain | RF | 2" | 150# |
| DPT | NPT | 1/2" | 3000# |
| Air eliminator unite. | NPT | 1/2" | 3000# |

10. GENERAL TERMS:

In order to evaluate the tender's quotation, the following information must be given:

- 10.1 Filter drawings.
- 10.2 Accessories drawings.

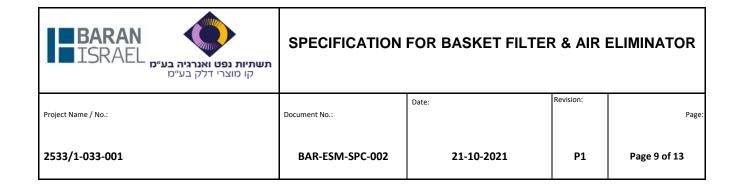


- 10.3 List of recommended spare parts (for 2 years) with pricing.
- 10.4 Delivery date.
- 10.5 List of Israeli suppliers including contact address.
- 10.6 Price for the offer.
- 10.7 The price should include the packing and preparation for seaworthy shipment and delivery CIF ASHDOD Port.

11. GUARANTEE:

Product warranty for 18 months from the date of installation.

Any defect due to faulty design, materials or bad workmanship become apparent during the warranty period, a vendor shall repair or otherwise rectify the defects, and free of charge to purchaser. Changes shall be made at a time and a manner agreeable to the client.



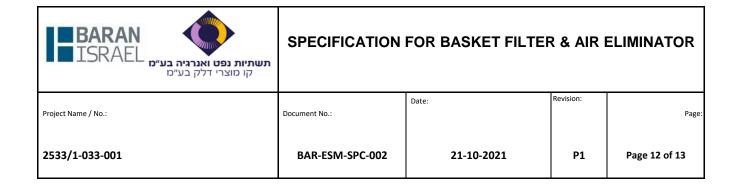
ATTACHMENT A BASKET FILTER DATA SHEET



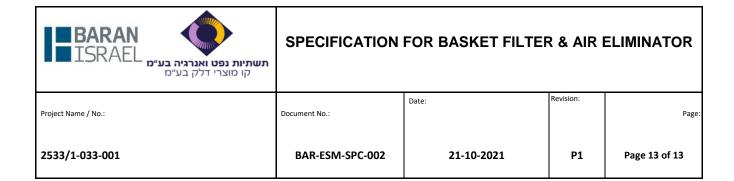
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| L | | DIAMETER | ₹ (*) | m | nm | | | | | | | C | TY | 3 |
| ١. | | HEIGTH o | r LENGTH (*) | m | nm | | | | | | | PLANT L | _{INIT} | HSEL |
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| | SERVICE diesel | fuel Inlet Filters | <u>-</u> | | | | | | <u>-</u> | ITEM | FLT(500 m 3 | | |
| | DIAMETER (| *) mm | | | | | | | | QTY | 5 | | |
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ATTACHMENT B BILL OF QUANTITIES



| tem | Tag | Туре | Size | Location | Qty | Unit price | Total |
|--------------------------------------|-----|-------------------------|------|----------|-----|---------------|-------|
| BASKET FILTER & AIR ELIMINATOR | | FLT- (500 m3/h) : | | | 5 | | |
| BASKET FILTER & AIR ELIMINATOR | | FLT- (350 m3/h) : | | | 3 | | |
| | | | | | | | |
| | | | | | | | |