

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	<p>Document Title: Material Requisition for Refrigeration Unit</p>			
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>		<p>Rev. R2</p>	<p>Page 1 of 23</p>

Material Requisition for Refrigeration Unit

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
R2	17.Oct.2021	Issued for BID (IFB)	E.Parnianchi	S.Behniafar	R.Memar
R1	28.Oct.2020	Issued for BID (IFB)	E.Parnianchi	S.Behniafar	R.Memar
R0	10.Oct.2020	Issued for Approval (IFA)	E.Parnianchi	S.Behniafar	R.Memar



پتروشیمی توسعه پارک
صنعتی گوهر افق

Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.
CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF
STYRENE PARK OFFSITE



BINA EPC Contractor Co.
(Executor of Oil, Gas, Petrochemical & Power Industries)

Document Title: Material Requisition for Refrigeration Unit

Document Number: EI027-000-ED-ME-MRS-011

Rev. R2

Page 2 of 23

Tabulation of Revised Pages

Page	Revisions							Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6		R0	R1	R2	R3	R4	R5	R6
1	X	X	X					41							
2	X	X	X					42							
3	X							43							
4	X							44							
5	X							45							
6	X							46							
7	X		X					47							
8	X							48							
9	X							49							
10	X							50							
11	X							51							
12	X							52							
13	X							53							
14	X		X					54							
15	X							55							
16	X							56							
17	X							57							
18	X							58							
19	X							59							
20	X							60							
21	X							61							
22	X							62							
23	X							63							
24	X							64							
25								65							
26								66							
27								67							
28								68							
29								69							
30								70							
31								71							
32								72							
33								73							
34								74							
35								75							
36								76							
37								77							
38								78							
39								79							
40								80							

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	<p>Document Title: Material Requisition for Refrigeration Unit</p>		
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>	<p>Page 3 of 23</p>

Table of Contents

1. INTRODUCTION	5
2. Definitions	5
3. Purpose	5
4. References & Attachments	6
5. Vendors responsibilities	7
5.1 General	7
5.2 Review of Documents	7
5.3 Operation and Design Life	7
5.4 Environmental Conditions	7
5.5 Material	8
5.6 Safety Requirements	8
5.7 Duty and Responsibility of the Vendor Supervisor	9
5.7.1 General	9
5.7.2 Qualification	9
5.7.3 Omissions	9
5.7.4 Duty.....	9
5.8 Responsibility.....	10
5.9 Technical documentation	10
5.10 Language.....	10
5.11 Spare parts/special tools	10
5.12 Performance Guarantees	11
5.13 Information to be submitted with tender.....	11
5.14 Document priority	12
5.15 Exceptions/deviations	12
6. Scope of supply	12
7. Scope of Work	14
8. Exclusions from vendor's scope of supply	15

	<p style="text-align: center;">Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		
	<p style="text-align: center;">Document Title: Material Requisition for Refrigeration Unit</p>		
	<p style="text-align: center;">Document Number: EI027-000-ED-ME-MRS-011</p>		<p style="text-align: center;">Rev. R2</p>

9. Inspection and testing	16
10. Vendor documents requirements	16
11. Special Notes and Others	20
12. Changes	21
13. Preparation for Shipment	21
14. ATTACHMENT 1- Deviation/Exception To Job Specification	22
15. ATTACHMENT 2 - SPIR Form.....	23

	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		
	Document Title: Material Requisition for Refrigeration Unit		
	Document Number: EI027-000-ED-ME-MRS-011		Rev. R2

1. INTRODUCTION

Creation and development of chain units of Styrene Monomer is the mission of Gohar Ofogh Industrial Park. This company is joint investment of 4 companies including:

- Petro-Entekhab PolyStyrene Plant
- SADAF ESR PLANT
- Kimiya Sanaye Dalahoo Expandable Polystyrene Plant
- JAM ABS AND RUBBERS PLANT

is located in Assaluyeh.

Feed and utility lines and network construction, a 10,000 MT Styrene Monomer tank construction, Peroxide and its sidelong equipment warehouse are amongst this company's missions. This industrial Park was established on 2011 in an area of 9 acres.

Some of the ongoing projects of this company are:

- ABS-Rubber project
- ESR project
- EPS project
- Poly Styrene

2. Definitions

Owner/Client: Gohar Ofogh Industrial Park



Engineering Consultant: Fanavaran Tehran Farayand Company Project: Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.

CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE

Location: Assaluyeh zone, Boushehr province, IRAN

3. Purpose

The purpose of this document is defining the minimum requirements for the design, materials, Fabrication, delivery, installation, inspection & test, pre-commissioning, commissioning and supply of Refrigeration Units as per following table for Assaluyeh. Park styrene project, to be complied by the Vendor :

	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		
	<p>Document Title: Material Requisition for Refrigeration Unit</p>		
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>		<p>Rev. R2</p>

No.	Description	Qty.
1	Refrigeration Unit Package (RU-0001 A/B)	2
2	Electrical, Instrumentation and Control System (As a minimum for safe & optimum performance)	-
3	Central Power & Control panel	1
4	All parts is necessary for equipment installation (Such as anti-vibration, bolt & nut, . . .)	-

4. References & Attachments

Site and Design Condition for Offsite Area	EI027-000-ED-PR-SPC-002	R2
Specification For Low Voltage Motors	EI027-000-EB-EL-SPC-002	R3
Specification for Package Instrumentation	EI027-000-ED-IN-SPC-004	R2
Duty Specification for Refrigeration Unit	EI027-000-ED-PR-SPC-003	R1

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>
	<p>Document Title: Material Requisition for Refrigeration Unit</p>	
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>

5. Vendors responsibilities

5.1 General

The vendor shall be responsible for supply, selection and sizing of the Refrigeration Unit Package and the proper functioning of the entire packages, on the agreed date, in accordance with the specifications, data sheet, drawings and all referenced standards in this requisition.

The vendor shall be contractually responsible for the complete supply of the equipment and shall obtain and coordinate all sub-vendor equipment as required to provide fully functional unit in accordance with the documents and requirements referenced herein.

Vendor is fully responsible for the design, performance and implementation of quality assurance procedures and inspection of materials and components for the complete unit.

Providing information and technical support during installation and pre-commissioning and final inspection and testing, as may be required, at site is included in vendor's scope of supply and responsibility.

Vendor shall be responsible for QA and QC as per relevant codes and specifications.

5.2 Review of Documents

Review / approval of SUPPLIER documents by PURCHASER/COMPANY shall not relieve the SUPPLIER of his guarantees regarding performance of the units or the responsibility to ensure the equipment is safe for operation and fit for purpose.

5.3 Operation and Design Life

The RU Package Equipment shall be designed for minimum life duration of 25 years.

5.4 Environmental Conditions

All RU Package Equipment shall be suitable in all respects for operation in a humid, salt laden & corrosive atmosphere as specified in "EI027-000-ED-PR-SPC-002, Site and Design Condition for Offsite Area".

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	<p>Document Title: Material Requisition for Refrigeration Unit</p>		
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>	<p>Page 8 of 23</p>

5.5 Material

The materials shall be as detailed in the data sheets and referenced specifications. All materials used in the manufacture of the Refrigeration Unit Package shall be new and free from defects. Materials for equipment and duct components shall be supplied, tested and certified as required.

The SUPPLIER may offer alternate material if, based on his experience, these would render equal or better service and before use, it shall be approved by PURCHASER/COMPANY. Use of asbestos or asbestos compounds is NOT permitted for ANY application.

Material certification requirement in accordance with BS EN 10204 shall be submitted as follows:

- 3.1 for pressure retaining parts
- 2.2 for other non-pressure parts

The relevant certificates shall be included in the Manufacturer's Data Report (MDR).

The SUPPLIER remains responsible of the final selection of the materials for the specified service.

5.6 Safety Requirements

Any items or individual components potentially hazardous to health shall be identified.

All rotating and moving parts shall be provided with non-sparking guards in hazardous area.

Vendor shall supply a set of Safety Instructions with each machine in English & Farsi language.

Vendor shall identify any substance or materials potentially hazardous to health.

Vendor shall consider Hazardous area classification and according to this document, shall supply suitable equipment.

	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		
	Document Title: Material Requisition for Refrigeration Unit		
	Document Number: EI027-000-ED-ME-MRS-011		Rev. R2

5.7 Duty and Responsibility of the Vendor Supervisor

5.7.1 General

The Supervisor, who is dispatched to the site for the installation, start-up, inspection, repair and maintenance of the equipment supplied by the vendor, shall perform his duty for all equipment including those supplied by the vendor's subcontractor. (If vendor does not carry out installation, commissioning & start up personally)

5.7.2 Qualification

The Supervisor shall be sufficiently qualified to perform his duty. The vendor shall provide the resume of the expected personnel for Purchaser's approval. Purchaser has a right to reject the Supervisor proposed by the vendor and to appoint alternative personnel.

5.7.3 Omissions

Any omission in the requirements detailed herein shall not relieve the SUPPLIER of any responsibility to deliver a complete system delivering the specified performance.

5.7.4 Duty

The duty of the Supervisor shall be, but not limited to, as follows (if any);

- (1) Witness the inspection of undoing the packing
- (2) Check the dimensions of the foundation
- (3) Supervising and direction for the assembling and installation *
- (4) Supervising, direction and check the leveling and alignment. *
- (5) Supervising, direction and check the connection of the main piping.
- (6) Check the performance, and adjustment of the safety device and instruments.
- (7) Supervising the preparation of the startup. *
- (8) Supervising and direction for the start-up operation. *
- (9) Execution of and/or supervising and direction for the assembling, disassembling, inspection and repair.
- (10) Preparation of the inspection records and the miscellaneous report.
- (11) Advice of the control for the time schedule.
- (12) Technical supervising and direction for the maintenance.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>
	<p>Document Title: Material Requisition for Refrigeration Unit</p>	
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>

* If vendor does not carry out installation, commissioning & start up directly.

5.8 Responsibility

The Vendor shall identify and be responsible for damages to properties and/or personnel injuries resulted from the gross negligence of the Supervisor while performing his duty.

5.9 Technical documentation

Vendor shall supply drawings and documents as indicated on the requirements for documentation, which lists the type of documents to be submitted and in what form i.e. transparency or print and the submission schedule.

Additional to the document requirements, the vendor shall also supply the following:

1. Detailed planning & manufacturing schedule
2. Monthly progress report.

As well as any complementary document deemed necessary by the purchaser.

5.10 Language

All documentation shall be written in English language.

5.11 Spare parts/special tools

List of pre-commissioning, commissioning, start up, two years operation and also capital spare parts

shall be provided by VENDOR as follows:

- VENDOR shall fill out SPIR form according to Attachment-2 for pre-commissioning, commissioning and start-up base on his experience and recommendation for review.
- VENDOR shall fill out SPIR form according to Attachment-2 for 2 Years operation base on his experience and recommendation for PURCHASER review and approval.
- Special tools are included in VENDOR's scope of supply. A list of special tools shall be also submitted by VENDOR.
- Spare parts list shall be specified in detail to identify each individual item.
- Supply of spare parts shall be guaranteed for at least 10 years by VENDOR.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>
	<p>Document Title: Material Requisition for Refrigeration Unit</p>	
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>

- Spare parts and special tools shall be preserved for long term storage in a marine atmosphere, and they shall be corrosion protected and packed in such a way that damage during transportation and storage is avoided.
- The VENDOR shall also provide the PURCHASER with name, address, telephone and Fax number of the manufacturers of the spare parts to enable the PURCHASER to directly receive proposals, enter into negotiations and procure such parts.

5.12 Performance Guarantees

The guarantee and warranty shall be in accordance with the material requisition/purchase order. If any defect or mal-performance occur during the period of 18 month after successful start-up or 24 month after shipping whichever comes earlier, the vendor shall make all necessary alternation, repairs, and replacements free of charge.

Field labor charges, if any, shall be subject to negotiation between vendor and purchaser.

5.13 Information to be submitted with tender

Vendor shall submit minimum following information with tender:

1. Short description of the unit
2. Material of construction
3. Sizes, rating, material etc. of vendor proposed equipment
4. All required information as indicated with proposal on attached mechanical data sheets
5. Completed data sheets
6. Performance curves
7. Catalogues
8. List of proposed sub-vendors/sub-contractors
9. Preliminary filled out Inspection Test Plan (or example from similar unit)
10. Procedure for performance test
11. All items indicated herein and clarification

Vendor shall prepare all necessary drawings/guide line and procedure for Mechanical, Electrical, Instrument, Installation, Commissioning and maintenance.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>
	<p>Document Title: Material Requisition for Refrigeration Unit</p>	
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>

5.14 Document priority

In general, unless a mandatory code or statutory requirements shall take the first priority, the order of priority shall be as follows:

- a Data Sheets (Mechanical and process)
- b Material Requisition
- c Project Specifications
- d International Codes and Standards and/or regulations
- e Manufacturer Standards

Compliance with the provisions of the above documents does not relieve the vendor of his responsibility to furnish equipment of proper design, suitable for the specified duties and design conditions and requirements as indicated in this requisition.

5.15 Exceptions/deviations

No deviations shall be allowed from any statutory and Iranian national regulations. The vendor may propose deviations from the other listed codes and standards. Any such deviation will be considered by the purchaser, provided that the vendor can support his proposal with relevant experience and the deviations will result in a significant cost saving and/or a technically equal or better product. Company and Purchaser reserve the right to reject any of the suggested deviations. The vendor's proposal must provide a detailed list of exceptions to the requirements of this requisition.

Where no specific exceptions are stated, vendor will be considered to be in full compliance.

6. Scope of supply



VENDOR shall supply GOODS as defined under following table, along with all necessary components required for safe and normal operation of the GOODS, as more detailed under respective datasheets and specifications. Items marked with (X) shall be within VENDOR's scope of supply. Those marked with (R) may be placed within VENDOR's scope of supply if to be recommended by VENDOR. Those marked with (S) shall be quoted separately by VENDOR and shall be of PURCHASER's option.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	Document Title: Material Requisition for Refrigeration Unit			
	Document Number: EI027-000-ED-ME-MRS-011		Rev. R2	Page 13 of 23

	Item	Required by PURCHASER	Proposed By VENDOR NOTE1	Remarks
1	Refrigeration Unit Package	(X)	()	NOTE 2
2	Central Power panel	(X)	()	NOTE 2
3	Central Control panel	(X)	()	NOTE 2
4	All other necessary supply	(X)	()	
5	Vibration isolator and caustic lining material for Refrigeration Unit Package	(X)	()	
6	drain piping, complete with valves and other accessories	(X)	()	
7	Control system and instrumentation to satisfy the functional requirements	(X)	()	
8	All necessary instrumentation.	(X)	()	
9	All internal cabling of equipment	(X)	()	
10	All electrical and control cabling, junction boxes, electrical fittings between the power & control panel and users	(X)	()	
11	Special tools required for operation, removal, installation and maintenance, mechanical handling, testing, calibrating and alignment purposes.	(X)	()	
12	Special tools for pre-commissioning and commissioning.	(X)	()	
13	Hardwired cable from field instrument to instrument junction box	(X)	()	
14	Earth boss	(X)	()	
15	Spare parts for <ul style="list-style-type: none"> • pre commissioning, commissioning & start up • 2 Years Operation 	(X)	()	
16	First fill lube oil	(X)	()	
17	Air Quality guarantee	(X)	()	
18	Performance and Mechanical guarantee	(X)	()	
19	All requirements for safe and easy startup of the compressors	(X)	()	
20	Sound attenuator (If necessary)	(X)	()	

NOTE 1: VENDOR shall mark(X) for each item when accepting PURCHASER requirement.

NOTE 2: All equipment shall be selected due to client's electrical drawings.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	Document Title: Material Requisition for Refrigeration Unit			
	Document Number: EI027-000-ED-ME-MRS-011	Rev. R2		Page 14 of 23

7. Scope of Work

Items marked with (X) shall be within VENDOR's scope of work.

	Items	Required by PURCHASER	Proposed by VENDOR NOTE 1	Remarks
1	Engineering and Documentation in electronic and hardcopy forms	(X)	()	All contractual documentation and drawings as specified in the material requisition including VENDOR's documentation will be required.
2	Technical support and troubleshooting of the RU Package.	(X)	()	
3	Review and provide information about control, safeguarding, start-up/shutdown systems and all instrument integration with centralized plant control system	(X)	()	
4	Coordination of engineering and purchasing of sub-VENDORS supply	(X)	()	
5	Monthly progress reports	(X)	()	
6	List of spare parts	(X)	()	
7	Input data for PURCHASER concerning design requirements	(X)	()	
8	Manufacturing and assembling	(X)	()	
14	Inspection, pipe leakage testing	(X)	()	
15	Mounting equipment and Auxiliaries on skid at shop	(X)	()	
16	Pre inspection meeting, if required by OWNER and/or PURCHASER	(X)	()	
17	Inspection and testing at Shop & Site	(X)	()	
18	Cabling, Wiring and Tubing to Junction Box within battery limit(s)	(X)	()	
19	Providing the distribution Power Switch, distributing panel which distributing power supply to RU Package	(X)	()	
20	Piping within the Package	(X)	()	
21	Surface preparation	(X)	()	
22	Painting(If any) <ul style="list-style-type: none"> • Prime Coats at Shop • Finish Coats at Shop • Touch Coats at site 	(X) (X) (X)	() () ()	
23	Marking & Packing <ul style="list-style-type: none"> • Export Packing 	(X) (X)	() ()	

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	Document Title: Material Requisition for Refrigeration Unit			
	Document Number: EI027-000-ED-ME-MRS-011		Rev. R2	Page 15 of 23

	<ul style="list-style-type: none"> • Rust Prevention • For Long Term (12 month) 	(X)	()	
24	Packing, preservation and preparation for shipment	(X)	()	
25	Shipping and Transportation to point of delivery	(X)	()	
26	Installation of pumps, fans, control panel and instrumentation including supports and accessories.	(X)	()	
27	Piping including fitting, insulation, supports and accessories.	(X)	()	
28	Installation of all within package cables including power and instruments cables or equipment	(X)	()	
29	Termination of all power and instrument cable within battery limit.	(X)	()	
30	All lifting equipment and accessories used for installation work	(X)	()	
31	assembly, installation and pre-commissioning	(X)	()	
32	Erection, commissioning and start up	(X)	()	
33	Total package function and performance test	(X)	()	
34	Shop and field training	(X)	()	
35	Running test at site	(X)	()	
36	Definition of control & safety system requirements	(X)	()	
37	Supplier to provide all necessary documents to enable PURCHASER to configure control systems	(X)	()	
38	Each equipment shall be provided with a steel nameplate showing the COMPANY name, manufacturer, serial number, equipment tag number, capacity, weight, power rating, voltage, full load current and other essential data.	(X)	()	

NOTE1: VENDOR shall mark (X) for each item when accepting PURCHASER requirement.

8. Exclusions from vendor's scope of supply

1. Civil works including concrete foundation, but all the calculations, template of anchor bolts and related drawings for foundation design shall be submitted by VENDOR.
2. Grout and grouting (if required)

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	<p>Document Title: Material Requisition for Refrigeration Unit</p>			
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>		<p>Rev. R2</p>	<p>Page 16 of 23</p>

9. Inspection and testing

Inspection and tests shall be carried out by Vendor in accordance with:

- Requirements specified in this Requisition and attached Inspection Test Procedure
- Vendor's proposed procedure subject to Purchaser/COMPANY Approval
- Vendor's ITP approved by Purchaser/COMPANY
- Scope of Inspection

10. Vendor documents requirements

Item	Description	First Issue			Final Issue (5)
		Issue date (2)	Purpose (3)	Quantity type (4)	Quantity type (4)
1	List of VENDOR's documents and drawings	+2W	IFR	2C	6C+E
2	Engineering/ Fabrication / Production schedule	+2W	IFR	2C	6C+E
3	Sub order/ Sub vendor schedule	+3W	IFR	1E+2C	-
4	General arrangement drawings & mechanical equipment catalogue	+6W	IFR	3C+E	6C+E
5	Monthly progress report	+2W	IFI	1E+2C	-
6	Interface & connection schedule	+6W	IFR	3C+E	6C+E
7	Mechanical guarantee	+2W (after test)	IFR	3C+E	6C+E
8	Utility consumption list	+6W	IFR	3C+E	6C+E
9	Materials of construction	+6W	IFR	3C+E	6C+E
10	Bill of materials (BOM)	+6W	IFR	3C+E	6C+E
11	Utilities schedule	+6W	IFR	3C+E	6C+E
12	Equipment data sheets	+6W	IFR	3C+E	6C+E



Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.
**CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF
 STYRENE PARK OFFSITE**



BINA EPC Contractor Co.
 (Executor of Oil, Gas, Petrochemical & Power Industries)

Document Title: Material Requisition for Refrigeration Unit

Document Number: EI027-000-ED-ME-MRS-011

Rev. R2

Page 17 of 23

13	Noise data sheet	+12W	IFR	2C+E	6C+E
14	Fan and compressor performance curves	+6W	IFR	3C+E	6C+E
15	Fan certificates for dynamics & statics balance test	+2W (after test)	IFR	3C+E	6C+E
16	Equipment foundation drawings and load data	+8W	IFR	3C+E	6C+E
17	Detail drawings	+8W	IFR	3C+E	6C+E
18	Equipment dimensional drawings	+8W	IFR	3C+E	6C+E
19	Equipment service area drawings	+8W	IFR	3C+E	6C+E
20	Assembly drawings	+8W	IFR	3C+E	6C+E
21	Deviation report from previous documents (even in "No deviation" case)	+2W	IFR	2C	6C+E
22	Panel cabinet layout	+6W	IFR	3C+E	6C+E
23	Electrical termination and hook-up details	+6W	IFR	3C+E	6C+E
24	Connection diagrams	+6W	IFR	3C+E	6C+E
25	Electrical schematics	+6W	IFR	3C+E	6C+E
26	Cable schedule (Power & control)	+6W	IFR	3C+E	6C+E
27	Electrical single line diagrams	+6W	IFR	3C+E	6C+E
28	Electrical Load list	+6W	IFR	3C+E	6C+E
29	Electric motor data sheets	+12W	IFR	3C+E	6C+E
30	Instrument/Electrical logic diagram	+6W	IFR	3C+E	6C+E
31	Junction box terminal diagrams	+6W	IFR	3C+E	6C+E
32	Electrical equipment catalogues	+6W	IFR	3C+E	6C+E
33	Instrument data sheet	+6W	IFR	3C+E	6C+E
34	I/O list	+6W	IFR	3C+E	6C+E
35	Instrument location drawings	+6W	IFR	3C+E	6C+E



پتروشیمی توسعه پارک
صنعتی گوهر افق

Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.
CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF
STYRENE PARK OFFSITE



BINA EPC Contractor Co.
(Executor of Oil, Gas, Petrochemical & Power Industries)

Document Title: Material Requisition for Refrigeration Unit

Document Number: EI027-000-ED-ME-MRS-011

Rev. R2

Page 18 of 23

36	Instrument control schematics	+6W	IFR	3C+E	6C+E
37	Instrument loop diagrams	+6W	IFR	3C+E	6C+E
38	Junction box termination drawings	+6W	IFR	3C+E	6C+E
39	Painting & coating procedure	+6W	IFR	3C+E	6C+E
40	Non-destructive examination (NDE) procedures	+4W(before test)	IFR	3C+E	6C+E
41	Certification and manufacturing data dossier (includes comprehensive index)	2M before delivery	IFI	3C+E	-
42	Equipment test procedure (FAT & SAT)	+4W(before test)	IFR	3C+E	6C+E
43	Hydro test / Pneumatic test Procedure	+4W(before test)	IFR	3C+E	6C+E
44	Functional and performance test procedure	+4W(before test)	IFR	3C+E	6C+E
45	Ingress protection certificate	1M before delivery	IFR	3C+E	6C+E
46	Inspection completion certificates	+2W (after test)	IFR	3C+E	6C+E
47	Performance test report	+2W (after test)	IFR	3C+E	6C+E
48	Production test report	+2W (after test)	IFR	3C+E	6C+E
49	Release certificate	+2W (after test)	IFR	3C+E	6C+E
50	Weighing certificate	+2W (after test)	IFR	3C+E	6C+E
51	WPS & PQR	+2W (after test)	IFR	3C+E	6C+E
52	Technical operation and maintenance manual (with index)	2M before delivery	IFR	3C	6C+E+3CD
53	Schedule of manufacturers, pre commissioning and commissioning spares	2M before delivery	IFR	3C+E	-
54	Special tools list (for operation, removal, installation and maintenance purposes)	2M before delivery	IFI	3C+E	-
55	Erection and installation procedures	2M before delivery	IFR	3C	6C+E+3CD

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE		 BINA EPC Contractor Co. <small>(Executor of Oil, Gas, Petrochemical & Power Industries)</small>		
	Document Title: Material Requisition for Refrigeration Unit				
	Document Number: EI027-000-ED-ME-MRS-011			Rev. R2	Page 19 of 23

56	As-built drawings and data sheets	2M before delivery	IFR	3C+E	6C+E
57	Schedule of routine maintenance requirements	2M before delivery	IFI	3C+E	-
58	Spare parts & interchangeability record (SPIR) for commissioning & 2 years	2M before delivery	IFR	3C	-
59	Packing list	1M Before delivery	IFI	1E+2C	-
60	Specification and procedures for unpacking, inspection and storage	2M before delivery	IFR	3C	6C+E+3CD
61	Specification and procedures for preservation during transport and storage before and after receipt by purchaser	2M before delivery	IFR	3C	6C+E+3CD
62	Calibration / setting data sheets, calibration curves, calibration procedure	1 M before delivery	IFO	3C+E	6C+E
63	Electrical consumer list	+10W	IFR	3C+E	6C+E
64	Operation and safety manual	2M before delivery	IFR	3C+E	6C+E
65	Operating manual	2M before delivery	IFR	3C+E	6C+E
66	Maintenance schedule	2M before delivery	IFR	3C+E	6C+E
67	Site NDT requirements, if any	+10W	IFR	3C+E	6C+E
68	NDT record certificates For Inspector review	1M before delivery	Info	3C+E	-
69	Material certificates For Inspector review	2M before delivery	IFR	3C+E	6C+E
70	Engineering, procurement, manufacturing and test schedule	+2W	IFI	1E+2C	-
71	Recommendations for protection during transportation	1M Before delivery	IFI	1E+2C	-
72	Final book	1M Before delivery	IFI	1E+2C	-

NOTES:

- (1) * = Priority documents subject to penalization or term of payment
- (2) ISSUE DATE: number of D = Days / W = Weeks / M = Months after purchase order effective Date (unless otherwise specified)/ B.D. = Before Delivery
- (3) PURPOSE: IFR = Issue for review and comments, IFI = Issue for information
- (4) QUANTITY: per type / TYPE: C = Copy T = Transparency P = Polyester M =Microfilm E = Electronic file CD = Compact Disk

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>	 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>
	<p>Document Title: Material Requisition for Refrigeration Unit</p>	
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>	<p>Rev. R2</p>

(5) FINAL ISSUE: Document without comments (with document status = 3)

11. Special Notes and Others

- This Requisition sets out the minimum requirements for the supply and does not relieve the Vendor of his full responsibility for the design and the reliable operation of the elements supplied. Therefore the Vendor will be liable for the correct mechanical operation of any auxiliary elements involved. In the preparation of his proposal the Vendor shall fulfill all the provisions of this Requisition even if they differ from the standard supply. Whenever the Vendor cannot comply with the present Requisition for technical reasons, he shall state it in detail in the chapter of the exceptions. The Vendor shall fill-in all parts of the data sheet to allow the various proposals to be uniformly evaluated. Failing to do this, his proposal shall be considered incomplete.
- No protection, paint or other filling shall be applied to the contract works before they have been inspected, tested and approved. After approval and before dispatch each part of the contract works shall be thoroughly cleaned and appropriately protected and packed in accordance with the requirements of carriers and shippers and suitably for prolonged storage. All packing cases and materials are included in the proposed price, and shall become the property of the purchaser.
- Equipment shall be emptied, dried, painted and, where Preparation for Shipment necessary, preserved for shipment and long term 12 months outside storage. Adequate temporary bracing for equipment and accessories shipped with the exchangers shall be provided to avoid overstressing or damage during shipping, transportation and erection, as required. All equipment shall be packed and weather protected for export. Loose parts shall be boxed and shipped along with an itemized packing list with the main assembly.

	<p style="text-align: center;">Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		
	<p style="text-align: center;">Document Title: Material Requisition for Refrigeration Unit</p>		
	<p style="text-align: center;">Document Number: EI027-000-ED-ME-MRS-011</p>		<p style="text-align: center;">Rev. R2</p>

12. Changes

1) Change Order

The Purchaser reserves the right, from time to time, to make the design, quantity and other technical requirements throughout the project duration.

2) No Changes

Any change arising from the following, but not limited to, shall create any variation order.

- a) Compliance with safety or regulation according World Bank Regulation & Environment
- b) Error or omission on the port of the Vendor
- c) Any change arising from the failure in Verification by the Vendor.

13. Preparation for Shipment

Equipment shall be emptied, dried, painted and, where necessary, preserved for shipment and long term **12** months outside storage.

Adequate temporary bracing for equipment and accessories shipped with the equipment shall be provided to avoid overstressing or damage during shipping, transportation and erection, as required.

All equipment shall be packed and weather protected for export. Loose parts shall be boxed and shipped along with an itemized packing list with the main assembly.

 <p>پتروشیمی توسعه پارک صنعتی گوهر افق</p>	<p>Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>		 <p>BINA EPC Contractor Co. (Executor of Oil, Gas, Petrochemical & Power Industries)</p>	
	<p>Document Title: Material Requisition for Refrigeration Unit</p>			
	<p>Document Number: EI027-000-ED-ME-MRS-011</p>		<p>Rev. R2</p>	<p>Page 22 of 23</p>

14. ATTACHMENT 1- Deviation/Exception To Job Specification

The VENDOR declares that its proposal is in full compliance with the MR requirements, except for the deviation/ exceptions describe below.

Item No.	Title & Revision of the reference document		Reason For Proposed Deviation / Exception	Cost Impact in case of rejection of the Deviation / Exception by PURCHASER
	Document Title	Revision		



پتروشیمی توسعه پارک
صنعتی گوهر افق

Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.
CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF
STYRENE PARK OFFSITE



BINA EPC Contractor Co.
(Executor of Oil, Gas, Petrochemical & Power Industries)

Document Title: Material Requisition for Refrigeration Unit

Document Number: EI027-000-ED-ME-MRS-011

Rev. R2

Page 23 of 23

15. ATTACHMENT 2 - SPIR Form

21	EQUIP CLASS	1	EQUIPMENT REG NO. CR TAG NO.	2	MANUFACTURER'S MODEL	3	REFERENCE SERIAL NO	4	NO OF UNIT	5	NUMBER OF PART PER UNIT	6	EQUIPMENT PURCHASER ORDER NO.
UNIT (KG,NO,PAIR,SET)													
NOTE:													
1) ALL EQUIPMENT HAVING INTERCHANGEABLE ITEMS TO BE STATE ON SAME FORM													
2) QUOTE IN COLUMN 10 PARTS NUMBER SHOWING INTERCHANGEABILITY WITH EQUIPMENT MANUFACTURER'S ORGANIZATION													
3) QUOTE IN COLUMN 20 ORIGINAL IDENTIFICATION NUMBER FOR ALL NEWS OF THIRD PARTY MANUFACTURE (Bought out)													
SPARE PART LIST AND INTER CHARGEABILITY RECORD													
REQUERED ON SITE DATE													
APPROVED PURCHASER BY													
OPERATIONAL SPARE PART													
REMANDER:													
ATTACH TO THIS FORM ALL PARTS LISTS AS DRAWINGS AS LISTED IN COLUMN													
MANUFACTURE DATA													
DESCRIPTION OF PARTS													
TO INCLUDE ALL PARTS RECOMMENDED TO BE KEPT FOR NORMAL OPERATION AND SLOW WEARING PARTS													
DRAWING PARTS NO													
PART IDENTIFICATION SEE NOTE2 ABOVE													
MATERIAL SPECIFICATION													
RECOMMENDED BY MANUFACTURE													
RECOMMENDED BY CONTRACTOR													
INITIAL SPARE PART													
QUANTITY TO BE SUPPLY													
MISC. NO.													
CLASSIFICATION OF PARTS													
APPROXIMATE UNIT PRICE IN													
APPROXIMATE TOTAL PRICE IN													
REMARK SEE NOTE 3 ABOVE													
ITEM NO.													
DATE:													
SUBJECT:													
MANUFACTURE:													
SPARE PART ORDER NO.													
PROJECT/PLANT:													
CONSIGNEE:													
ENGINEERED BY:													
APPROXIMATE TOTAL VALUE:													
DELIVER TIME:													
REV LETTER													
DATE													
SIGN													
SHEET NO. OF													
REQUISITION NO.													

Page 1