


OWNER:	CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE						EPCC CONTRACTOR: 
	MATERIAL REQUISITION FOR PIPING SPOOLS						
MC:	Plant Code	Job No.	Unit	Type	Group	Serial	Rev
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MATERIAL REQUISITION FOR PIPING SPOOLS

00	04-Sep-2024	ISSUED FOR INQUIRY	M.O.	F.SH.	A.M.
Rev.	Date	Description	Prepared	Checked	Approved



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1. Scope

This document covers, material supply, manufacturing, assembling, Inspection, testing, delivery and all other activities that is required for supply of Piping inside the package to successful startup of the package. This Requisition sets out the minimum requirements and does not relieve the Vendor of his full responsibility for the reliable manufacturing of supplied items. Therefore, the Vendor will be liable for the correct 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 vendor 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 deviations.

2. Definitions

2.1 Abbreviations

Abbreviation	Meaning
NDT	None Destructive Test
QA	Quality assurance
WPS/PQR	Welding Procedure Specification/Procedure Qualification Record
CD	Compact Disc
QCP	Quality Control Plan
MOM	Minuets Of Meeting
PMI	Positive Metal Identification

3. References


3.1 General

All documents, codes and standards referenced in this requisition, shall form an integral part of this Requisition and shall be followed where applicable. For project documents, latest revision of the documents up to date of kickoff meeting shall be followed.

For codes and standards, latest revision up to date of order shall be followed. Purchaser reserve the right to request the vendor to use and follow an older revision of a code or standard due to his requirements.

3.2 Code and standards


No.	Code/Standard Number	Code/Standard Title
1	ASME B31.3 Edition 2022	Process Piping
2	ASME Section V, Edition 2021	Nondestructive Examination
3	ASME Section IX, Edition 2021	Welding and Brazing Qualifications
4	ASTM/ASME Section II, Edition 2021	Materials

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5	BS EN 10204 (3.1)	Metallic Products - Types Of Inspection Documents
6	ASME B16.5	Pipe Flanges And Flanged Fittings: Nps 1/2 Through Nps 24 Metric/Inch Standard
7	ASME B16.47 Series B	Large Diameter Steel Flanges Nps 26 Through Nps 60 Metric/Inch Standard
8	ASME B16.9	Factory-Made Wrought Butt welding Fittings
9	ASME B16.20	Metallic Gaskets For Pipe Flanges Ring-Joint, Spiral-Wound, And Jacketed
10	ASME B16.21	Nonmetallic Flat Gaskets For Pipe Flanges
11	ASME B1.1	Unified Inch Screw Threads
12	ASME B18.2.1	Square, Hex, Heavy Hex, And Askew Head Bolts And Hex, Heavy Hex, Hex Flange, Lobed Head, And Lag Screws (Inch Series)
13	ASME B18.2.2	Nuts For General Applications: Machine Screw Nuts, Hex, Square, Hex Flange, And Coupling Nuts (Inch Series)
14	ASME B36.19	Stainless Steel Pipe
15	ASME B36.10	Welded And Seamless Wrought Steel Pipe
16	AWS	American National Standard for Welding

3.3 Project Documents

No.	Document Title	Document Number	Revision	Remarks
A	General Documents :			
1	Painting Procedure	EI027-HSE-VD – QC– PRO– 002	00	
2	Final Data Book Preparation Instruction		00	
3	Deviation List			
4	Approved Vendor List		08	NPC, POGC, MOP
B	Technical Documents:			
B-1	Piping:			
1	Isometrical drawings		00	
2	3D Model	EI027-HSE-VD – PI– MOD– 002	00	
3	Line List		00	
4	Valve List		00	
5	MTO for Pipe, Fitting, Flange		00	
6	Inspection and Test Plan for Piping		00	

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No.	Document Title	Document Number	Revision	Remarks
7	Pipe Support Information		00	
8	General Arrangement Drawing	EI027-HSE-VD – PI- DWG- 001	00	

4. Inquired Items

4.1 Item Name and Tag Number


No.	Item Description	Item Tag Number	Number Required	Type
1	Piping Spool		2 Unit	Piping

5. Scope of Work and Supply

5.1 Scope of Supply


Vendor proposal shall include, but not be limited to, equipment and materials specified in the following: Items marked with “vendor” in column of " Included in supply scope of:" hereunder shall be within vendor Scope of supply.

No.	Item Description	Included In Supply Scope of:
	Piping	
1	Supply of All Required Materials as Per Isometric Drawing, including but not limited to: Pipes, Flanges, Fitting, Olets, etc	Vendor
2	Supply of all Supports For Piping	Vendor
3	Teflon (6 mm) Between Pipe and Pipe Support	Vendor
4	U bolt including 2 nuts	Vendor
5	Gasket, Bolts, Nuts and Washers as per Isometric	Vendor
6	Welding Rod for Shop Fabrication	Vendor
7	Welding Rod for site assemblies (if required)	Vendor
8	Cover the open ends with metal blank for Interconnection Pipes	Vendor
9	Gasket, Bolt and Nuts and washers for Interconnection Pipes for Transport	Vendor
10	Silica Gel for for Interconnection Pipes for Transport	Vendor
11	External Surface Painting	Vendor
12	Touch-up paint for repair work at site	Vendor
13	Valves	Others
14	Instrument	Others
15	Insulation	Others
16	Fire Proofing	Others
17	3.1 Certification for pressure part & 2.2 for Non-Pressure part materials	Vendor
18	All certificates requested in this MR	Vendor
19	Final Data Book	Vendor

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5.2 Scope of Work

No.	Item Description	Included in Work Scope of:
	Piping	
1	Preparation of Piping Shop Drawings	Vendor
2	Material Procurement	Vendor
3	Fabrication (including all required welding) of Piping Spools at Shop	Vendor
4	Welder Performance Qualification Tests	Vendor
5	Inspection And Tests	Vendor
6	NDE	Vendor
7	Inside Cleaning	Vendor
8	Primer Painting	Vendor
9	Intermediate Painting	Vendor
10	Final Painting / Coating / Color approval	Vendor
11	Touch-up paint for repair work at site	Vendor
12	Chemical Cleaning, Pickling & Passivation For Stainless Steel Parts	Vendor
13	Positive Material Identification (PMI) For Non-Carbon Steel Material	Vendor
14	Hydrotest of Piping Spools	Vendor
15	Air Drying after Hydrotest	Vendor
16	Inland Shipping Marking / Packing	Vendor
17	Preparation For Shipment	Vendor
18	Ex-Work Delivery	Vendor
19	As Built Isometric Drawing	Vendor
20	Fianl Dta Book	Vendor

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6. Design

6.1 General

All of referenced and attached standards or project documents shall be used and followed strictly when applicable including all typical drawing or details.

6.2 General Notes

- 6.2.1 All Documents / Drawings Shall Be Written In English.
- 6.2.2 All Vendor Drawings And Documents Should Be Provided In Purchaser Title Block.
- 6.2.3 All E-Files Should Be Provided In Original Format (E.G AutoCAD, Word, Excel, Etc.)

6.3 Piping

- 6.3.1 15 % RT (Spot) is considered for pipe spools (Butt Joints) only.
- 6.3.2 All the joints shall be visually inspected and DP testing will be done.
- 6.3.3 3.1 Certification is considered for all piping materials including Gasket, Bolts, Nuts
- 6.3.4 Flanges Face Finishing Shall Be Smooth With 125 Micro Inch Minimum To 250 Micro Inch Maximum, As Per ASME B16.5/B16.47.
- 6.3.5 Flange Bolt Holes Shall Be Straddled North/South C.L. (Or Horizontal C.L.).
- 6.3.6 All material shall be supplied from latest Revision of NPC, POGC and MOP approved vendor list

7. Documentation

7.1 General

During Equipment / Material Service Purchase Order implementation stage:


- Issue of the Job QA plan
- Issue of working procedures for purchaser review within one month after order.
- Implementation of the working procedure during order execution
- Performance of vendor Management Audit Program
- Vendor shall provide the Copy of vendor quality manual / quality plan. Quality Plan shall be subject to presentation, discuss and clarification with purchaser, and Company as necessary, prior to incorporation into contract.

7.2 Conflict in purchaser documents

In case of conflict between purchaser documents, Vendor shall inform the Purchaser about the conflict. For important conflicts, vendor shall wait for purchaser clarification before proceeding. For other events, documents priority order as specified hereinafter should be used. When conflict is not clarified between purchaser and vendor before order, the purchaser has the right to select the most stringent requirements without accepting any cost or time impact.

7.3 Language of documentation

All documents shall be written in the English. Persian may be used for local letters and minutes of meeting if approved by purchaser. All documents in other languages shall be translated to English before submittal.

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7.4 Unit of measurement

SI units shall be used as far as possible except for followings:


- Pipe and flange nominal diameter should be represented in inch.

7.5 Documents shall be submitted by vendor

LIST OF DOCUMENTS REQUIRED FROM VENDOR							
NO.	DESCRIPTION	AT THE TIME OF BID Q/TYPE	AFTER ORDERING				AT THE FINAL INSP. (Note 4)
			DRAWINGS AND DOCUMENTS (NOTE 10)				
			Q/TYPE (Note 1)	DEL. TIME (Note 2)	PURPOSE (Note 3)	FINAL ISSUE (Note 1)	
A	General:						
1	Manufacturing Schedule Per Equipment (Including Design, Procurement, Fabrication, Test And Packing, Delivery)	4/C	4/C+1/CD	Monthly	R	-	-
2	Sub-Vendor/Sub-Supplier List (Note 6)	4/C	-	-	R	-	-
3	Country of Origins of Material	4/C	4/C+1/CD	With Material Certificate	I	-	-
4	Vendor's Progress Report	-	4/C	Monthly	R	-	-
5	Material Certificates / Certificate of Origin	-	4/C+1/CD	3 W Before Fabrication Start	I	10/C+2/CD	X
6	Copy Of Un-priced Sub-Vendor/Sub-Supplier Orders	-	4/C+1/CD	1 W After Sub-Order Placement	-	-	-
7	Vendor Quality Control Plan	-	4/C+1/CD	4 W	R	10/C+2/CD	X
8	Inspection and Test Plan	-	4/C+1/CD	4 W	R	10/C+2/CD	X
9	Welding Procedure Specifications And Procedure Qualification Records (WPS & PQR) Including General Arrangement Drawings And Related Weld Or Welding	-	4/C+1/CD	6 W Before Welding	-	10/C+2/CD	X

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LIST OF DOCUMENTS REQUIRED FROM VENDOR								
NO.	DESCRIPTION	AT THE TIME OF BID Q/TYPE	AFTER ORDERING					AT THE FINAL INSP. (Note 4)
			DRAWINGS AND DOCUMENTS (NOTE 10)				FINAL ISSUE (Note 1)	
			Q/TYPE (Note 1)	DEL. TIME (Note 2)	PURPOSE (Note 3)	FINAL ISSUE (Note 1)		
	Map For All Welding							
10	Welders Qualification Certificates	-	4/C+1/CD	3 W Before Welding	-	10/C+2/CD	X	
11	Testing / NDT Procedures	-	4/C+1/CD	6 W Before Test	R	10/C+2/CD	X	
12	Painting Procedure	-	4/C+1/CD	6 W Before Painting	R	10/C+2/CD	X	
13	Pickling And Passivation Procedure	-	4/C+1/CD	6 W Before Pickling	R	10/C+2/CD	X	
14	NDT Personal Qualification Certificate	-	4/C+1/CD	6 W Before Test	R	10/C+2/CD	X	
15	NDT Map	-	4/C+1/CD	6 W Before Test	R	10/C+2/CD	X	
16	Testing / NDT Records	-	4/C+1/CD	2 W After Test	R	10/C+2/CD	X	
17	PMI Procedure	-	4/C+1/CD	6 W Before Test	R	10/C+2/CD	X	
18	PMI Record	-	4/C+1/CD	2 W After Test	R	10/C+2/CD	X	
19	Hydrotest Procedure	-	4/C+1/CD	6 W Before Test	R	10/C+2/CD	X	
20	Hydrotest Certificates	-	4/C+1/CD	2 W After Treat	R	10/C+2/CD	X	

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			DRAWINGS AND DOCUMENTS (NOTE 10)				FINAL ISSUE (Note 1)	
			Q/TYPE (Note 1)	DEL. TIME (Note 2)	PURPOSE (Note 3)			
21	Other Shop Test Reports	-	4/C+1/CD	2 W Before Test	R	10/C+2/CD	X	
22	Packing Lists and Packing Sketch	-	4/C+1/CD	Upon Shipment	R	10/C+2/CD	X	
23	Material + Mill Certificates And Acceptance Certificates	-	10/C+2/CD	1 W Before Delivery	R	10/C+2/CD	X	
24	Equipment Inspection Release Certificates	-	10/C+2/CD	2 W After Delivery	R	10/C+2/CD	X	
25	As-Built Drawings	-	10/C+2/CD	2 W Before Delivery	R	10/C+2/CD	X	
26	List of Documents to Be Included in Vendor Data Book	-	4/C+1/CD	2 M Before Delivery	R	-	X	
27	Vendor Data Book	-	-	2 W After Delivery	R	10/C+4/CD	X	

Notes:

- (1) Q=QUANTITY, C=COPY, T=TRANSPARENT, P=POLYESTER, CD=COMPACT DISC, E=E-FILE
- (2) W=WEEK AFTER ORDER PLACEMENT, M=MONTH AFTER ORDER PLACEMENT
- (3) R=FOR REVIEW, I=FOR INFORMATION
- (4) X=DOCUMENTS TO BE SUBMITTED AT THE FINAL INSPECTION / DATA BOOK
- (5) PRICED COPY + UNPRICED COPY
- (6) PURCHASER HAS THE RIGHT TO REJECT SUB-VENDORS/SUB-SUPPLIERS IF HIS CAPABILITY IS JUDGED POOR OR NOT PROVEN.
- (7) NO DRAWING / DOCUMENT COULD BE REVIEWED BEFORE RECEIVING VPIS.
- (8) ALL DRAWINGS SHOULD INCLUDE WEIGHTED PART LIST.

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			DRAWINGS AND DOCUMENTS (NOTE 10)				
			Q/TYPE (Note 1)	DEL. TIME (Note 2)	PURPOSE (Note 3)	FINAL ISSUE (Note 1)	

- (9) ORIGINAL E_FILE SHOULD BE PROVIDED FOR FEA
- (10) ORIGINAL E_FILE SHOULD BE PROVIDED.

8. Inspection and Tests

8.1 General

Inspection and tests shall be made by Vendor in accordance with requirements specified in this Requisition and/or any Engineering Specification, code or standard referenced in this requisition.

Shop witness test shall be carried out in accordance with the documents approved by Purchaser. Any witness/testing/inspection without the approved document shall be invalid.

No protection, paint or other filling shall be applied to the contract works before they have been inspected, tested and approved.

Manufacturing Data Record for Equipment shall be prepared in accordance with applicable specification and shall be completed at the final stage of inspection/test for Purchaser's inspector's review prior to shipment of items.

8.2 Traceability Levels

The following levels shall apply to the traceability of certification:

Level 1 – EN 10204-3.2 Critical items

Level 2 – EN 10204-3.1 Normal level of assurance

Level 3 – EN 10204-2.2 Non- critical items

8.3 NDE Qualification

All personnel performing NDE functions must be adequately qualified. The NDE operators qualifications shall form part of all Vendor quality plans and therefore be approved by the purchaser before manufacture works by the inspector. The foregoing shall also apply to all sub- manufacturers.

9. Guarantee

Vendor shall guarantee the operation of the equipment to the specified design conditions. Vendor shall warrant the materials and workmanship of the piping spool for a period of 12 months after successful start-up or eighteen (18) months from the date of certificate of mechanical completion. below items shall be considered by vendor. Under this warranty, Vendor shall replace all materials, parts, and assemblies found to be defective during the guarantee period. Vendor shall also, if required, supply the services of an experienced engineer to supervise the necessary repairs and replacements.