



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



Document Title: Inspection Test Plan (ITP)

Document No.: EI027-DMF-VD-QC-ITP-021-R2

Rev. R2

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# STYRENE PARK OFFSITE

**Document Title:**  
**Inspection Test Plan (ITP)**

Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED
R2	31-Aug.-2024	Issued for Approval	A.Parsafar	A.Shadmand	M.Heidarzadeh
R1	20-Aug.-2024	Issued for Approval	A.Parsafar	A.Shadmand	M.Heidarzadeh
R0	29-JUL-2024	Issued for Approval	A.Parsafar	A.Shadmand	M.Heidarzadeh



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**REVISION RECORD SHEET**

Page	Revisions							Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6		R0	R1	R2	R3	R4	R5	R6
1	X	X						41							
2	X	X						42							
3	X	X						43							
4	X	X						44							
5	X	X						45							
6		X						46							
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ABBREVIATIONS USED			
<b>UT:</b>	Ultrasonic Test	<b>Witness Point (W)</b>	An activity designated by OWNER, TPA and PURCHASER, which requires witnessing by OWNER, TPA and PURCHASER as the activity will be performed after proper notification has been provided. VENDOR is not obliged to hold further processing, if OWNER, TPA and PURCHASER are not available to witness the activity or does not provide the comments before the date related activity. Basis of acceptance shall be as per relevant technical specification.
<b>PT:</b>	Liquid Penetrate Test		
<b>RT:</b>	Radiographic Test		
<b>WPS:</b>	Welding Procedure Specification	<b>Hold Point (H):</b>	An activity designated by OWNER, TPA and PURCHASER in the approved ITP which requires inspection/verification and acceptance by OWNER, TPA and PURCHASER before proceeding to any further steps. VENDOR shall not perform any activities/items beyond a Hold Point without written approval by Relevant parties when obtaining prior written permission for proceeding to further steps
<b>PQR:</b>	Procedure Qualification Record		
<b>PWHT:</b>	Post Weld Heat Treatment	<b>Review / Approval</b>	RA means that documents reviewed by involved party shall be signed and stamped as reviewed and approved. Where a document is subjected to party approval, next steps of work shall not proceed until related party approved is obtained.
<b>WPQCs:</b>	Welder's performance qualification certificates		
<b>Review: R</b>	COMPANY/CONTRACTOR will verify the Inspection by Reviewing, VENDOR's inspection/test record instead of making physical inspection. It is processed through reviewing any results of inspection or test as a method of ensuring that the inspection or test .	<b>Purchase Order (PO)</b>	The documents and attachments in the which order is described and assigned to a Supplier.
<b>Spot witness: (SW)</b>	Inspection and witnessing an activity during presence time of the inspection in the shop for other notified R/W/H points. No notification is required.	<b>Supplier or Vendor or Manufacturer</b>	Any person, firm or business which manufactures or supplies. Materials, equipment or services for the performance of any item of WORK.

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No.	Description of Inspection/Test	Applicable Specification or Procedure	Acceptance criteria	Reporting Format	Participation by			
					Vend or	Third Part	Ener tech.	Owner
1	<b>PIM</b>	As Per Approved Procedures, Spec, Standard, Data Sheet,	-	M.O.M	H	H	H	H
2	<b>GENERAL REQUIREMENT</b>							
2.1	All Engineering Documents & Drawings	Project Spec. / Relevant Applicable Standard/As Per Approved VPIS	Procedure & Drawing	Related Documents	H	R	R/A	R/A
2.2	All Inspection & Test Procedure				H	R	R/A	R
2.3	WPS / PQR				H	R	R/A	R
3	<b>MANUFACTURING OF HEADER BOXES</b>							
3.1	Material certificate for all pressure parts (Plate, Tube, Flange, Plug & Paint) + visual inspection	ASME II Part A& B - EN 10204 3.1	Drawing	Certificate/ Lab Result	H	R	R	R
3.2	Cutting & marking	Approved Drawing	Drawing	Report	H	R	R	R
3.3	Primary Fit up Header Box with Stiffener /Partition Plates	ISO5817©& Drawing	Drawing	Report	H	R	SW	R
3.4	Fit up Flange to pipe and nozzle to Header Box & Visual Check of Welds	ISO5817©& Drawing	Drawing	Report	H	R	SW	R
3.5	Tube / Plug Sheet Drilling Visual and Dimensional	API 661	Drawing	Report	H	R	SW	R
3.6	Final Visual & Dimensional inspection	API 661-DIN 7168(m) & Drawing	Drawing	Report-M.O.M	H	W& R/A	H	R
3.7	Review of Radiographic Films	ASME V & VIII Div.1, As Per NDT Map & NDT	Procedure	Report/ MOM	H	R/A	R	R
3.8	UT	ASME V & VIII Div.1, As Per NDT Map & NDT Procedure	Procedure	Report/ MOM	H	W	W	R
3.9	PWHT& relevant graphs. (Stress Relieve) +	ASME V & VIII	Procedure	Report/ MOM	H	R/A	W	R



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3.10	Hardness Test	API 661	Standard	Report	H	R	R/A	R
3.11	NDT after PWHT (PT)	ASME V & VIII Div.1, As Per NDT Map & NDT	Procedure	Report	H	R	R	R
3.12	Header Sandblast & Painting inspection	Procedure	Procedure	Report	H	R	SW	R
<b>4</b>	<b>ASSEMBLY OF TUBE BUNDLE</b>							
4.1	Visual and Dimensional Check of Finned Tubes	DTT procedure	Procedure & Drawing	Report/MOM	H	R	R	R
4.2	Galvanizing Thickness Measurement	Procedure	Procedure	MOM	H	R	R	R
4.3	Tube Expanding	Procedure	Procedure	Report/MOM	H	SW	SW	R
4.4	Final Visual and Dimensional Inspection	API 661& Drawing	Drawing	Report/ MOM	H	SW& R/A	H	R
4.5	Hydrostatic test	API 661-ASME VIII &As Per Procedure	Procedure & Drawing	Report/ MOM	H	H	H	H
4.6	Check of Dryness and Cleanliness And charge with N2	DTT procedure	Procedure	MOM	H	W	SW	R
4.7	Name Plate Stamping (Before Attaching)	APP.DWG	APP.DWG	MOM	H	W	SW	R
<b>5</b>	<b>Steel Structure</b>							
5.1	NDT (10% PT for Fillet Welds & 100% UT For CJP Butt Welds)	AWS D1.1	Procedure	Report	H	SW	SW	R
5.2	Bolt & Nut Check	ASTM F1136/	Procedure & Drawing	Certificate	H	SW	SW	R
5.3	Final Visual and Dimensional inspection	AWS D1.1 & DIN 7168(m)&Drawing	Drawing	Report	H	SW	W	R
5.4	Galvanizing check & Final Paint Check	ASTM A123	Procedure	Report	H	SW	SW	R
<b>6</b>	<b>Vibration Switch</b>	<b>Data Sheet</b>	<b>Data Sheet</b>	<b>Certificate</b>	<b>H</b>	<b>R</b>	<b>R</b>	<b>R</b>
<b>7</b>	<b>FANS</b>							
7.1	Dimensional Inspection and Visual Inspection (to be added for FAN)	Data Sheet	Data Sheet	Certificate/ MOM	H	W	W	R
7.2	Balance test for fan blades and hubs and Shaft	Data Sheet	Data Sheet	Certificate	H	R	R	R
<b>8</b>	<b>Electrical motors</b>							
8.1	Routine test	Data Sheet	Data Sheet	Certificate	H	R	R	R
8.2	No-load test				H	R	R	R



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8.3	Locked-rotor test				H	R	R	R
8.4	Explosion Proof/Intrinsically Safe Certificates Manufacturer and Mechanical Protection Degree Certificate (If required)	Data Sheet	Data Sheet	Certificate	H	R	R	R
8.5	Visual And Dimensional and Name Plate Check	Data Sheet	Data Sheet	MOM	H	W	SW	R
9	<b>Belt &amp; Driven Pulley</b>	Data Sheet	Data Sheet	Certificate/ DTT Certificate	H	R	R	R
9.1	Balance Test for Pully	Data Sheet	Data Sheet	Certificate	H	R	R	R
10	<b>Packing and marking for shipping -Packing list &amp; Checking of Name Plate</b>	-		<b>Packing List</b>	H	H	H	R
11	<b>Release Note</b>	Project Spec.		<b>Release Note</b>	-	H	H	R
12	<b>Manufacturing data book</b>	Project Spec.		<b>Final Book Data</b>	H	R/A	R/A	R
13	<b>Site Running test</b>	Procedure	Procedure	Report	H	H	H	H

***All Inspection Notifications should be at least 2 working days before.***