



DEHDASHT PETROCHEMICAL INDUSTRY COMPANY
DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT



Contract No.: DPIC/98-12	DOCUMENT TITLE: Inspection & Test Plan (ITP) for Refrigeration Unit (PK-6101)	POI: IFA	Rev. D1
	DOCUMENT No: DPIC9812-000-VD-1002-ME-ITP-0008	Sheet 1 of 11	

Inspection & Test Plan (ITP) for Refrigeration Unit (PK-6101)

PURCHASER'S COMMENT/APPROVAL STATUS				Purchaser: NARGAN		
1.	AP: Approved (Released for Manufacturing)	Requisition No.: DPIC98-12-001-000-ME-MR- 4150-0001-D1				
2.	AN: Approved With Minor Comments (Fabrication may Proceed)	Item No. (Tag No.): PK-6101				
3.	NF: Approved With Comments (Fabrication not Proceed)	Vendor Doc. No.: DPIC9812-000-VD-1002-ME-ITP-0008				
4.	RJ: Rejected					
5.	NR: Not be Returned					
Date: XX.XX.XX		Signature:				
D1	04-Jan-2022	Issue for Approval	M. R	M. M	A.V	
D0	16-Nov-2021	Issue for Approval	M. R	M. M	A.V	
REV.	DATE ISSUE	Purpose of Issue	PREPARED	CHECKED	APPROVED	



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SIGN: ASME VIII DIV. 1		ITEM NO(S).: DEJDASHT PETROCHEMICAL Refrigeration Package				MANUFACTURER SERIAL NUMBER:				
1	Scope	This Inspection and Test plan covers all activities that will be carried out in design and fabrication of equipment.								Date:
2	LEGEND OF THE TECHNICAL SURVEILLANCE	1) (H)= INSPECTION NOTIFICATION will be issued by manufacturer and inspection shall be performed at presence of notified party. Next fabrication stage is subject to acceptance of inspection. Vendor must notify parties activity) of the defecated inspection activity at least fifteen (15) days in advance.								Rev.: D0
		2) (SW)=10% OF TYPE/LOT WITNESSED. Action performed only on a certain number of pieces.								By:
		3) (W)=WITNESSING. The Supplier shall inform the NOTIFIED PARTY of the date of the activity and the NOTIFIED PARTY reserves the right to witness the test. If the test is conducted at the notified date, the Supplier may proceed with the subsequent phase, even if the NOTIFIED did not witness the test.								
		4) (R/A)=REVIEW OF TECHNICAL DOCUMENTS BEFORE COMMENCEMENT OF CONSTRUCTION. The technical documents shall be reviewed and approved before the commencement of construction								
		5) (R)=REVIEW OF DOCUMENTS. Materials certificates, statement of compliance and reports of inspection and tests conducted by the Supplier shall be revised to assess their conformance with the requirements specified in the Code and Standards, Specifications and/or Purchase Order.								
		6) (M) = KASRAVAND(Manufacturer) Inspection								
3	Abbreviations	O = Owner (Dehdasht PC/PIDMCO)		N = NARGAN	V = Vendor	SV = Sub Vendor	TPI = Third Party Inspection on behalf of owner			
Item No.	Inspection Description	References / Specifications / Codes	Verifying Document	Acceptance Criteria	INSPECTION ACTIVITY					REMARKS
					SV	V	N	TPI	O/MC	

A PROJECT PREPARATION

A1	VERIFY CUSTOMER SPECIFICATION	ASME VIII DIV 1 (U-STAMP NOT REQUIRED)(Welding Standard) DETAILS AS PER QUALITY PLAN				Type	H	H				
						Date						
						Sign						
A2	PRE INSPECTION MEETING		MOM & ITP			Type	H	H	H		H	
						Date						
						Sign						



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Item No.	Inspection Description	References / Specifications / Codes	Verifying Document	Acceptance Criteria	INSPECTION ACTIVITY						REMARKS
					SV	V	N	TPI	O/MC		
					Date	Sign					
B MATERIAL SELECTION / SUBCONTRACTOR ORDERING											
B0	GENERAL	ALL ITEMS SUITABLE FOR AMBIENT TEMPERATURE / OUTDOOR ALL ITEMS TO BE CONFORM ZONE 2 GROUP IIB T3	MATERIAL SUPPLY FABRICATION SCHEDULE QA / QC		Type	H	H				
					Date						
					Sign						
B1	COMPRESSOR – SUBCONTRACTED MAYEKAWA FACTORY JAPAN	DETAILS AS PER COMPRESSOR QUALITY PLAN MANUFACTURER STANDARD	TEST REPORT: -Noise test. - Vibration test - Performance test - Running test - Hydro test	MATERIAL CERTIFICATES	Type	See ITP of Compressor					
					Date						
					Sign						
B2	MAIN MOTOR - SUBCONTRACTED	Refer to MOTOR ITP	TEST REPORT - Unwitnessed routine test report		Type	See ITP of MV Motor					
					Date						
					Sign						
B3	OIL PUMP MAYEKAWA FACTORY	MYCOM STANDARD	TEST REPORT incl; Hydro test result and performance test result	MATERIAL CERTIFICATES	Type	H	H	R	R		
					Date						
					Sign						
B4	PUMP MOTOR	MANUFACTURER STANDARD with protection class as per Exn HAZARDOUS AREA CERTIFICATE IECex / Exn Zone 2 IIB T3	TEST REPORT (Manuf. Std) - Unwitnessed routine test report		Type	H	H	R	R		
					Date						
					Sign						
B5	MAIN COUPLING	MYCOM STANDARD (Flexible disc type coupling)	SUITABLE FOR HAZARDOUS AREA	Material certificate, visual and dimensional inspection report	Type	H	H	R	R		
					Date						
					Sign						



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B6	PRESSURE VESSELS Double Oil filter (with element)Oil separator (with coalescer)											
B6-1	Material Inspection & Certificate review (Pressure Part)	App DWG Project Documents, Material Standards	Material Certificate / Inspection report 2.2 Certificate for non-pressure Parts	Approved drawings. EN 10204-3.1 Project Documents, Material Standards			H	H	W	W	R	
B6-2	Visual and dimensional check of fabricated heads	App. DWG	Head Dim. Report	Drawing Welding Map			H	H	W	W	R	
B6-3	Fit-up and welding of shells and heads	WPS/PQR, WELD MAP	Inspection Report	ASME SEC VIII,IX, Project job specification			H	H	SW	SW	R	
B6-4	Marking of nozzles on heads prior to cutting	App. DWG	Inspection Report	Drawing			H	H	W	W	R	
B6-5	Fit-up and welding of nozzles to heads	App. DWG	Inspection Report	Drawing			H	H	SW	SW	R	
B6-6	PWHT (if any)	Procedure	Inspection Report	Procedure			H	H	SW	SW	R	
B6-7	PMI test (if any)	Procedure	Inspection Report	Procedure			H	H	SW	SW	R	
B6-8	NDT	Procedure + NDT Map	Inspection Report	Procedure + NDT Map			H	H	RA	R	R	100% RTI & 20% W for Other NDT
B6-9	Final Visual & Dimensional Check	App DWG/ ASME Sec VIII,IX	Inspection Report	App DWG/ ASME Sec VIII,IX			H	H	W	W	R	
B6-10	Hydrostatic and Leak Test	Hydrostatic test procedure	Inspection Report	Hydrostatic test procedure			H	H	H	H	R	
B6-11	Final Painting Inspection	App. Painting Procedure Painting project specification	Inspection Report	App. Painting Procedure Painting project specification			H	H	H	H	R	



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B7	HEAT EXCHANGERS CONDENSOR ECONOMIZER OIL COOLER EVAPORATOR											
B7-1	Material Inspection & Certificate review (Pressure Part)	App DWG Project Documents, Material Standards	Material Certificate / Inspection report 2.2 Certificate for non-pressure Parts	Approved drawings. EN 10204-3.1 Project Documents, Material Standards			H	H	W	W	R	
B7-2	Visual and dimensional check of fabricated heads	App. DWG	Head Dim. Report	Drawing Welding Map			H	H	W	W	R	
B7-3	Fit-up and welding of shells and heads	WPS/PQR, WELD MAP	Inspection Report	ASME SEC VIII,IX, Project job specification			H	H	SW	SW	R	
B7-4	Marking of nozzles on heads prior to cutting	App. DWG	Inspection Report	Drawing			H	H	W	W	R	
B7-5	PWHT (if any)	Procedure	Inspection Report	Procedure			H	H	SW	SW	R	
B7-6	PMI test (if any)	Procedure	Inspection Report	Procedure			H	H	SW	SW	R	
B7-7	Fit-up and welding of nozzles to heads	App. DWG	Inspection Report	Drawing			H	H	SW	SW	R	
B7-8	NDT	Procedure + NDT Map	Inspection Report	Procedure + NDT Map			H	H	RA	R	R	100% RTI & 20% W for Other NDT
B7-9	Final Visual & Dimensional Check	App DWG/ ASME Sec VIII,IX	Inspection Report	App DWG/ ASME Sec VIII,IX		Type	H	H	W	W	R	
B7-10	Hydrostatic and Leak Test	Hydrostatic test procedure	Inspection Report	Hydrostatic test procedure		Type	H	H	H	H	R	



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B7-11	Final Painting Inspection	App. Painting Procedure Painting project specification	Inspection Report	App. Painting Procedure Painting project specification	Type	H	H	H	H	R	
B8	BASE FRAME		PT -10 % OF MAJOR STRUCTURAL CONNECTIONS 100 % PT LIFTING LUG WELDS VT and DT	ACC. DATASHEET/ DRAWING SKID CONNECTION POINTS ANCHOR BOLT POSITIONS INSPECTION /2.2 CERTIFICATE, AWS D1.1	Type	H	H	W	W	R	
B9	VALVES		MATERIAL CERTIFICATES 3.1 FOR MAJOR PARTS MANUFACTURER INSPECTION AND TEST RECORD HYDROSTATIC REPORT , VT and DT	ACC. DATASHEET/ DRAWING INSPECTION /CERTIFICATE	Type	H	H	SW	SW	R	
B10	PIPING		1. Carbon oil and refrigerant piping 10%. 2. SS Oil and refrigerant piping 10%. 3. Instrument air header 10%. Amount will be based on total amount of welded inches. VT and DT and welding visual check and PMI 100% of Process Piping will be Hydrostatic Tested in Presence of inspector	Material certificates	Type	H	H	W	W	R	100% RTI & 20% W for Other NDT
B11	SAFETY VALVES	ASME VIII DIV 1 without U-Stamp	MATERIAL CERTIFICATES 3.1 SET POINT CERTIFICATE CALCULATIONS TEST REPORT	Material certificates	Type	H	H	W	W	R	
B12	Smaller components within instrumentation routing, such AS TUBING and GASKETS and bolting.		MATERIAL CERTIFICATES 3.1	Material certificates	Type	H	H	SW	SW	R	



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B13	INSTRUMENTATION	MANUFACTURER STANDARD (Pressure and temperature gauges are provided with 2.2 material certificates)	MATERIAL CERTIFICATES 3.1 (Manifolds are provided with 3.1 Material certificates) DIMENSIONAL AND CONSTRUCTION DWG HAZARDOUS AREA CERTIFICATE CALIBRATION REPORT (3.1 material certificates). 3 point calibration		Type	H	H	W	W	R	
B14	PLC	MANUFACTURER STANDARD: 1. Software Redundancy 2. Redundancy required for CPU, power supply, communication card 3. Solenoid and On/Off valves will be executed in Exd. 4. Approved project document	BOM, Panel DWG, wiring DWG SAFE AREA project document Number: DPIC9812-000-VD-1002-ME-DIA-0040		Type	H	H	W	W	R	
B15	Local control Panel	LCS Wiring and Drawing	Documents Number: DPIC9812-000-VD-1002-ME-DWG-0027			H	H	W	W	R	
B16	ELECTRICAL ITEMS	LCS Wiring and Drawing	HAZARDOUS AREA CERTIFICATE Zone 2, IIB T3		Type	H	H	W	W	R	
C INSPECTION DOCUMENTS, PIPING											
C1	WELDING DOCUMENTS (WPS/PQR/WELDMAP)	ASME B31.3	Report		Type	H	H	R	R	R	
C2	WELDER'S QUALIFICATION	ASME IX	Report		Type	H	H	R	R	R	
C3	NDE PROCEDURES (UT/RT/MT/PT/HT)	ASME IX	NDT Map		Type	H	H	R/A	R	R	
C4	NDT OPERATORS	ASME V	Certificates		Type	H	H	R	R	R	
C5	Hydrostatic test procedure	ASME B31.3	Report	Hydrostatic Test Procedure	Type	H	H	R	R	R	
C6	SURFACE PREPARATION & PAINTING COATING PROCEDURE	OEM STANDARD / SUPPLIER PROCEDURES	Report	Vendor Specification	Type	H	H	R	R	R	



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D MATERIALS

D1	VISUAL EXAMINATION AND DIMENSIONAL CHECK OF MATERIALS THICKNESS VERIFICATION	ASME II SA20 / ASME II Part A & C	REPORT OF DIMENSIONAL INSPECTION REPORT	DIMENSIONS SURFACE CONDITION	Type	H	H	W	W	R	
D2	MATERIAL CERTIFICATION AND MARKING	ACC. TO PROJECT REQUIREMENTS (REFER TO PROJECT PACKAGE DATASHEET)	MATERIAL MAP	3.1.CERTIFICATE (For pressurized parts) 2.2 CERTIFICATE (for Non-pressurized parts)	Type	H	H	R	R	R	
D3	WELDING CONSUMABLES	MANUFACTURER STANDARD	3.1 MATERIAL CERTIFICATE	ASME Sec. II, part C	Type	H	H	W	W	R	
D4	NON PRESSURE RETAINING PARTS	ASME VIII DIV1 (U-STAMP NOT REQUIRED)	2.2 MATERIAL CERTIFICATE (No PMI requirement for Valves/internals and equipment)	MANUFACTURING STANDARD	Type	H	H	R	R	R	
D5	BOLTING MATERIAL	As per relevant drawings	3.1 MATERIAL CERTIFICATE	Certificate	Type	H	H	W	W	R	



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E INSPECTION

E1	DIMENSIONAL INSPECTION OF SKID CONNECTION POINTS	drawings	SKID CONNECTION POINTS – ANCHOR BOLT POSITIONS	WITHIN TOLERANCE REPORT / AS BUILT DRAWING	Type	H	H	W	W	R	
E2	PARTS AND COMPONENT INSPECTION	MAYEKAWA STANDARD	P&ID COMPONENT (ORDER) LIST		Type	H	H	W	W	R	
E3	Air Leak Test of Whole Package	Relevant Procedure	PRESS REPORT ME-F-7.6.0-01-SO72522- Leak test report	MANUFACTURING STANDARD	Type	H	H	R	R	R	
E4	PMI Test (Welds)	According to Weld Map-NDT Map (If Applicable)	Report	ASME Sec II Part A & C	Type	H	H	W	W	R	
E5	PAINTING	OEM STANDARD/SUPPLIER_(Painting Standard) PAINT SPECIFICATION	THICKNESS VISUAL INSPECTION and measurement via instrument. PAINT INSPECTION REPORT	ACC SPECIFICATION	Type	H	H	W	W	R	
E6	ELECTRICAL WIRING	WIRING CHECK			Type	M	W	W	W	R	
E7	INSPECTION OF junction BOX, LOCAL PANEL AND PLC	FACTORY ACCEPTANCE TEST 1. VISUAL INSPECTION JUNCTION BOX, LOCAL PANEL AND PLC 2. CONTINUITY, POWER UP & WET LOOP CHECK 3. FUNCTION TEST (REDUNDANCY, LOGIC)	TEST REPORT FAT TEST PROCEDURE	LOGIC DIAGRAM CONTROL NARRATIVE DRAWINGS, DATA SHEETS	Type	M	H	H	H	R	
E8	FINAL INSPECTION	Vendor STANDARD	NAME PLATES CONFIRMATION	RELEASE NOTE	Type	M	H	H	H	R	



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F Spare Part

F1	Material Inspection & Certificate review	App. Spare Part List	Material Certificate / Inspection report	EN 10204-3.1 Project Documents, Material Standards			H	H	W	W	R	
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G SHIPMENT AND LOADING

G1	PACKING AND MARKING PREPARATION FOR SHIPMENT DETAILED PACKING LIST AND LOOSE DELIVERY LIST	Packing Procedure	PACKING INSPECTION VISUAL INSPECTION COMPLETENESS CHECK	PACKING LIST		Type	H	H	H	H	R	
G2	Inspection of preservation check	-	Report	VENDOR STANDARD			H	H	W	W	R	
G3	Manufacturer compliance certificate	-	MCC	-			H	R	R	-	R	
G4	Issue of shipping release note	-	SRN	-			R	R	R	H	R	
F5	Vendor data book	Final data book, ITP, etc.	A COMPLETE PACKAGE OF INSPECTION AND TEST RECORD/CERTIFICATE MANUFACTURED RECORD	VDB index list		Type	H	H	R/A	R	R	