



CHEMDIST PROCESS SOLUTIONS PVT. LTD.

QUALITY ASSURANCE PLAN (VESSEL/HEAT EXCHANGER)

PURCHASE ORDER No./LOI No.	2223004661 DT. 04.06.2022	QAP Document No	CDPS-QAP-SO-651 REV-00, Date- 07.06.2022
CUSTOMER NAME	GFL LTD.	PROJECT	-
EQUIPMENT DESCRIPTION	1. CO ABSORPTION TOWER (T-6800/1) 2. REFLUX GENERATION TOWER (T-6801)	INSPECTION BY	ELECTROMECH ENGINEERING ENTERPRISES
EQUIPMENT DRG NO. & REV.	-	CDPS SO NO.	651

Sr. No.	INSPECTION ACTIVITY & DESCRIPTION	CHARACTERISTICS	TYPE/METHOD OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE CRETERIA/STANDARD	FORMAT OF RECORD	INSPECTION By			REMARK
							VENDOR	TPI	GFL	
1	DOCUMENT CONTROL & APPROVALS									
1.1	REVIEW & APPROVAL OF G.A. DRAWING	ASSEMBLY AND DETAILED ENGINEERING DRAWING	REVIEW & APPROVED	P.O./DATASHEET/APPLICABLE ASME CODE		APPROVED DRAWING	P	V	A	APPROVED BY CLIENT
1.2	REVIEW OF INSPECTION & TEST PLAN	APPROVED DRAWING & SPECIFICATION	REVIEW & APPROVED	P.O./DATASHEET/APPLICABLE ASME CODE/DRAWING/TECHNICAL DATA SHEET		QUALITY ASSURANCE PLAN	P	V	A	
2	MATERIAL CONTROL & IDENTIFICATION (PRESSURE & NON PRESSURE PARTS)									
2.1	INSPECTION FOR MAIN SHELL, DISH END PLATES & TUBES.	VISUAL AND DIMENSION CHECK	TEST CERTIFICATE VERIFICATION & IDENTIFICATION	APPROVED DRAWING & APPLICABLE CODE	APPLICABLE ASME STANDARD	MILL TEST CERTIFICATES / LAB TEST REPORTS & INSPECTION REPORTS	P	R	R	1. EN 10204 3.1 CERTIFICATION REQUIRED 2. IF MTC IS NOT AVAILABLE, THEN SAMPLES TO BE DRAWN FROM MATERIAL FOR CHEMICAL & MECHANICAL TEST AT NABL ACCREDITED LAB.
		CO-RELATION OF MARKINGS WITH MILL TEST CERTIFICATES. MECHANICAL & CHEMICAL PROPERTIES, ETC.	100% EDDY CURRENT & HYDRO TESTED TUBES				P	W	R	
2.2	INSPECTION FOR STD NOZZLE PIPES & FLANGES	VISUAL AND DIMENSION CHECK	TEST CERTIFICATE VERIFICATION & IDENTIFICATION	APPROVED DRAWING & APPLICABLE CODE	APPLICABLE ASME STANDARD	MILL TEST CERTIFICATES / LAB TEST REPORTS & INSPECTION REPORTS	P	R	R	
		CO-RELATION OF MARKINGS WITH MATERIAL TEST CERTIFICATES. MECHANICAL & CHEMICAL PROPERTIES, ETC.					P	R	R	
3	MANUFACTURING STAGES AND PROCESS CONTROL									
3.1	DISH END INSPECTION AFTER FORMING	VISUAL AND DIMENSION CHECK	VISUAL, MEASUREMENT, PROFILE CHECKING	APPROVED DRAWING & NDT PROCEDURE	APPLICABLE ASME STANDARDS	INSPECTION REPORT	P	R	R	
		DPT ON DISHED ENDS- CROWN & KNUCKLE PORTION	INSIDE & OUTSIDE SURFACE OF KNUCKLE PORTION & EDGES				P	W	R	
3.2	FIT-UP OF L/S, C/S JOINTS (SHELL, DISHED ENDS, ETC.)	VISUAL, DIMENSION, WELD EDGE PREPARATION, ROOT GAP, OFFSET, ALIGNMENT ETC.	VISUAL, MEASUREMENT, PROFILE CHECKING	APPROVED DRG.	APPLICABLE DRAWING & ASME STANDARD	INSPECTION REPORT	P	R	R	
3.3	FIT UP OF NOZZLES ON SHELL/DISH	VISUAL, DIMENSION, EDGE PREPARATION, ROOT GAP, PT EXAMINATION ON WEP	VISUAL AND MEASUREMENT	APPROVED DRG. & NDT PROCEDURE	APPLICABLE ASME STANDARD	INSPECTION REPORT	P	R	R	
3.4	TUBESHEETS : INSPECTION ON GROUND AFTER COMPLETION OF MACHINING & DRILLING	DIMENSION, ORIENTATION, LAYOUT, TUBE HOLES & LIGAMENT SIZE	VISUAL AND MEASUREMENT	APPROVED DRG.	APPLICABLE DRAWING & STANDARD	INSPECTION REPORT	P	R	R	
3.5	INSPECTION OF TUBE BUNDLE (SKELETON SET-UP)	NO. OF BAFFLES, PITCH & ORIENTATION	VISUAL AND MEASUREMENT	APPROVED DRG.	APPROVED DRG.	INSPECTION REPORT	P	R	R	
3.6	INSPECTION OF COMPLETED WELDS	VISUAL INSPECTION FOR UNDERCUTS, REINFORCEMENTS & OTHER SURFACE DEFECTS	VISUAL	APPROVED DRAWING & NDT PROCEDURE	APPLICABLE ASME STANDARDS	INSPECTION REPORT	P	R	R	REVIEW OF ALL RT REPORTS WITH FILMS
		TO CHECK WELDING / FABRICATION QUALITY	APPLICABLE NDT(DPT/RT/UT ETC.) AS PER WELD PLAN			NDT REPORTS/RADIOGRAPHY FILMS	P	R	R	

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							VENDOR	TPI	GFL	
3.7	OTHER PRESSURE/NON PRESSURE PART ATTACHMENTS TO EQUIPMENT	VISUAL, DIMENSION, WELDING FABRICATION TESTING ETC.	VISUAL AND MEASUREMENT	APPROVED DRAWING & NDT PROCEDURE	APPLICABLE ASME STANDARDS	INSPECTION REPORT	P	R	R	
			APPLICABLE NDT METHODS			TEST REPORTS	P	R	R	
3.8	PNEUMATIC TEST OF RF PADS	PRESSURE TEST OF LEAK TIGHTNESS BY AIR	VISUAL	APPROVED DRAWING & PROCEDURE	APPLICABLE ASME STANDARDS	INSPECTION REPORT	P	R	R	
4 FINAL INSPECTION/TESTING										
4.1	FINAL DIMENSION AND WELD VISUAL WHEREVER ACCESSIBLE	VISUAL AND DIMENSION CHECK	VISUAL AND MEASUREMENT	APPROVED DRAWING	APPROVED DRAWING AND SPECIFICATION	INSPECTION REPORT	P	W	R	
4.2	HYDROSTATIC TEST	PRSSURE TEST OF LEAK TIGHTNESS BY WATER	VISUAL	APPROVED DRAWING & PROCEDURE	APPLICABLE ASME STANDARDS	INSPECTION REPORT	P	W	R	
4.3	DRAINING & DRYING	VISUAL INSPECTION	VISUAL	AS PER PROCEDURE	COMPLETE DRAINING & DRYING	VISUAL VERIFICATION	P	R	R	
4.4	SURFACE PREPARATION & PAINTING FOR CS/MS PARTS	SURFACE ROUGHNESS, FINISH & COATING THICKNESS CHECK	VISUAL AND MEASUREMENT	APPROVED DRAWING & PROCEDURE	APPROVED DRAWING & PROCEDURE	INSPECTION REPORT	P	R	R	
4.5	PICKLING & PASSIVATION OF ALL S.S./SPECIAL MATTELURGY	VISUAL INSPECTION FOR SURFACE CLEANLINESS	VISUAL	APPROVED DRAWING & SPECIFICATION	ASTM A 380/SPECIFICATION	INSPECTION REPORT	P	R	R	
5 DISPATCH/DOCUMENTATION										
5.1	FINAL STAMPING ON NAME PLATE	VERIFYING NAME PLATES DETAILS AND STAMPING	VISUAL	APPROVED DRAWING	APPROVED DRAWING	NAME PLATE/RUB OFF	P	V	R	
5.2	INSPECTION RELEASE NOTE	VERIFICATION OF DOCUMENTS	AS BUILT DRAWING	-	PURCHASE ORDER AND SPECIFICATION	RELEASE NOTE	P	H	H	
5.3	DOCUMENTATION	VERIFICATION & COMPILATION OF INSPECTION & TEST RECORDS	-	-	PURCHASE ORDER AND SPECIFICATION	QUALITY CONTROL DOSSIER	P	R	R	
LEGENDS- P: PERFORM, V: VERIFICATION, R: REVIEW, W: WITNESS, H: HOLD, A: APPROVAL, TPI-THIRD PARTY INSPECTION NOTE - WHEREVER BACKCHIPING IS NOT POSSIBLE, ROOT RUN WELDING TO BE CARRIED OUT BY GTAW PROCESS.										
 Rahul Chavan Prepared By Vendor					 Approved By GFL					