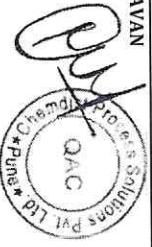

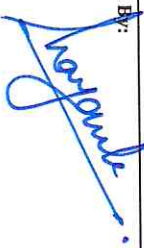



CLIENT : RALLIS INDIA LIMITED.			CHEMIST PROCESS SOLUTIONS PVT LTD			ITEM DESC. :		
PO No. : 4900017647			QUALITY ASSURANCE PLAN			1. SS316 BATCH TANK 500L.T.R. (ST-03A/B)		
DATE : 16/08/2022			QAP NO: CDPS-QAP-SO-672B, REV-00			QTY:- 02 NOS.		
QRN NO.: QRN-8118/R0			DT. - 19/08/2022					
SO No. : 672								
SR No.	COMPONENT / OPERATION	CHARACT. CHECKED	TYPE/METHOD OF CHECK	EXTENT	REF. DOCUMENT / ACCEPTANCE NORM	FORMAT OF RECORD	INSPECTION BY	REMARKS
1	Raw Material						CDPS	CLIENT
1.A	Material for Shell & Dish end	Visual, Dimensional, Mechanical & Chemical Test / Properties	Correlation with Lab T.C. Mill T.C.	One per heat/Lot	ASME Sec. II & Approved G.A. Drg. / Specifications	Material History Chart	W	R
1.B	STD Nozzle Pipes & Flanges	Visual, Dimensional, Mechanical & Chemical Test / Properties	Correlation with Lab T.C. Mill T.C.	One per heat/Lot	ASME Sec. II & Approved G.A. Drg. / Specifications	Material History Chart	W	R
2	In Process							
2.A	Procedure & Welder Qualification	Suitability of Procedure & Welder Skill	Mechanical testing of weld coupon & RT	100%	ASME SEC IX	WPS/PQR/WPQ Records	P	R
2.B	Dish End Inspection	Check with Template, Dimensions, DPT at WEP & Knucke.	Dimensional & NDT	100%	As per approved G.A. Drg. / Specifications/ASME Sec VIII & Sec V	Inspection report	W	R
2.C	Shell L-Seam, C-Seam Setup	Ht, OCF, Thk, Weld Edge Preparation, Root Gap & Mismatch	Dimensional & Visual	100%	As per approved G.A. Drg. / Specifications	Inspection report	W	R
2.D	L/Seam and C/Seam Backchip & DP	Soundness of root pass	Visual & DP	100%	As per ASME SEC VIII & Sev V	Inspection report	W	R
2.E	Radiography of Butt Welds (Shell & Dish)	Soundness of Weld Joint	RT	As per approved G.A. Drg.	As per ASME SEC VIII & Sev V	RT Report	P	R

Witness only for New Procedure, Otherwise Only Review.

CLIENT : RALLIS INDIA LIMITED. PO No. : 4900017647 DATE : 16/08/2022 QRN NO. : QRN-8118/R0 SO No. : 672				CHEMDIST PROCESS SOLUTIONS PVT LTD QUALITY ASSURANCE PLAN QAP NO: CDPs-QAP-SO-672B, REV-00 DT. - 19/08/2022				ITEM DESC. : 1. SS316 BATCH TANK 500LTR. (ST-03A/B) QTY:- 02 NOS.	
SR No.	COMPONENT / OPERATION	CHARACT. CHECKED	TYPE/METHOD OF CHECK	EXTENT	REF. DOCUMENT / ACCEPTANCE NORM	FORMAT OF RECORD	INSPECTION BY	REMARKS	
2.F	Nozzle to Shell fitup	Elevation, Weld Edge Prep, Gap, Orientation, Alignment	Dimensional & Visual	100%	As per approved G.A. Drg. / Specifications	Inspection report	W	R	
2.G	Nozzle weld backchip DP	Soundness of root pass	DPT	100%	As per ASME SEC VIII & Sev V	Inspection report	W	R	
2.H	Pneumatic Test of RF Pads, Pad type Flanges & Body Flanges Liner	Pressure Test (Leak Tightness)	Air	100%	As per scope/Drg.	Inspection report	W	R	
3 Final Inspection									
3.A	Dimensional & Visual Inspection	Overall Dimension	Dimensional & Visual Check	100%	As per approved G.A. Drg. / Specifications	Inspection report	W	R	
3.B	Hydro Test	Pressure Test (Leak Tightness)	Water	100%	As per scope/Drg.	Inspection report	W	W	
3.C	Outside Surface Preparation (Pickling & Passivation of SS Parts / Painting of MS Parts)	As per requirement	Finish	100%	As per Scope/ Drg./ Specifications	Inspection report	W	R	
4 Document Verification									
4.A	Final Document Review	Major	Review of documents	100%	As per scope/Drg.	Equipment Dossier	P	R	
Note: Wherever back chipping is not possible, full Penetration root run welding to be carried out by GTAW. CDPS : CHEMDIST PROCESS SOLUTIONS PVT LTD, R: REVIEW, W: WITNESS, P: PERFORM For, CHEMDIST PROCESS SOLUTIONS PVT. LTD. Plot No J-174/L, J-Block, MIDC, Bhosari, Pune-411026									
Prepared by: RAHUL CHAVAN  						Approved By: 			

CLIENT : RALLIS INDIA LIMITED.			CHEMIDIST PROCESS SOLUTIONS PVT LTD			ITEM DESC. : 1. SS316 SHELL AND TUBE HEAT EXCHANGER 32.7M2 (HE-01A/B)				
PO No. : 4900017647 DATE : 16/08/2022 QRN NO.: QRN-8118/R0 SO No. : 672			QUALITY ASSURANCE PLAN QAP NO: CDPS-QAP-SO-672A, REV-00 DT. - 19/08/2022			QTY.-: 02 NOS.				
Sr. No.	COMPONENT / OPERATION	CHARACT. CHECKED	TYPE/ METHOD OF CHECK	EXTENT	REF. DOCUMENT / ACCEPTANCE NORMS	FORMAT OF RECORD	INSPECTION BY		REMARK	
1	Material Inspection									
1.A.	Material Identification of Shell, Dish & Tubes	Mechanical & Chemical Properties	Correlation with Lab T.C. / Mill T.C.	One per heat	As per approved G.A. Drg. / Specifications	Material History Chart	CDPS	CLIENT		
1.B.	Nozzle Pipes & Flanges	Mechanical & Chemical Properties	Correlation with Lab T.C. / Mill T.C.	One per heat	As per approved G.A. Drg. / Specifications	Material History Chart	W	R		
1.C.	Body Flanges & tube sheet Material	Mechanical & Chemical Properties	Lab T.C. / Mill T.C.	One per heat	As per approved G.A. Drg. / Specifications	Material History Chart	W	R		
3. Ultrasonic Testing For Plate above 20mm thk.										
2 In Process Inspection										
2.A.	Procedure & Welder Qualification	Suitability of Procedure & Welder Skill	Mechanical Testing of Weld Coupon & RT	100%	ASME SEC. IX	WPS/PQR/WPQ Records	P	R	Witness Only For New Procedure Otherwise Only Review	
2.B.	Bonnet Dishend Inspection	Profile Check with Template, Dimensions, LPT at WEP, SF & knuckle	Dimensional & NDT	100%	As per approved G.A. Drg. / ASME SEC VIII DIV. 1	Inspection Report	W	R		
2.C.	Main Shell & Bonnet L-Seam, C-Seam Setup & Dishend Fitup	Height, OCF, Ovality, WEP, Root Gap & Mismatch	Dimensional & Visual	100%	As per approved G.A. Drg. / ASME SEC VIII DIV. 1	Inspection Report	W	R		
2.D.	L/Seam and C/Seam Backchip & DP test	Soundness of Root Pass	Visual & DPT	100%	ASME SEC. VIII DIV. 1 & SEC. V	Inspection Report	W	R		
2.E.	Tubesheets : Inspection at source	Orientation, Layout/ Finish, Ligament, Size of Tube Holes by GO-NOGO Gauge	Dimensional & Visual	100%	ASME SEC. VIII DIV. 1 & TEMA	Inspection report	H	R		
2.F.	Radiography of Butt Welds (If any)	Soundness of Weld Joint	RT Report Review	As per GA drawing	ASME SEC VIII, DIV. 1	RT Report	P	R		

CLIENT : RALLIS INDIA LIMITED. PO No. : 4900017647 DATE : 16/08/2022 QRN NO. : QRN-8118/R0 SO No. : 672				CHEMDIST PROCESS SOLUTIONS PVT LTD QUALITY ASSURANCE PLAN QAP NO: CDPS-QAP-SO-672A, REV-00 DT. - 19/08/2022				ITEM DESC. : 1. SS316 SHELL AND TUBE HEAT EXCHANGER 32.7M2 (HE-01A/B) QTY.:- 02 NOS.			
Sr. No.	COMPONENT / OPERATION	CHARACT. CHECKED	TYPE / METHOD OF CHECK	EXTENT	REF. DOCUMENT / ACCEPTANCE NORMS	FORMAT OF RECORD	INSPECTION BY	REMARK			
2.G.	Nozzle to Shell / Dish Fitup	Elevation, Weld Edge Prep, Orientation & Bolt hole straddleness	Dimensional & Visual	100%	As per approved G.A. Drg. / ASME SEC VIII DIV. 1	Inspection Report	W	R			
2.H.	Nozzle weld backchip DPT	Soundness of root pass	Visual & DPT	100%	ASME SEC. VIII DIV. 1 & SEC. V	Inspection Report	W	R			
2.I.	Inspection of Tube Bundle (Skeleton Set-up)	Baffle spacing, qty, cut, thk, orientation, Shell cleanliness before insertion	Visual & Dimensional	100%	As per approved G.A. Drg. / AME SEC VIII DIV. 1 & TEMMA	Inspection report	W	R			
2.J.	Tubesheet to Main Shell Fit-up	Total Length - Shell Side, Alignment, Orientation, WEP, Gap	Visual & Dimensional	100%	As per approved G.A. Drg. / AME SEC VIII DIV. 1 & TEMMA	Inspection report	W	R			
3 Final Inspection											
3.A.	Dimensional & Visual Inspection	Overall Dimension	Dimensional & Visual Inspection	100%	As per approved G.A. Drg. / Specifications	Inspection Report	W	R			
3.B.	Hydro Test (Shell & Tube Side).	Pressure Test (Leak Tightness)	Water	100%	As per approved G.A. Drg. / ASME SEC VIII DIV. 1	Inspection Report	W	W			
3.C.	Surface Preparation (Pickling & Passivation of SS Parts / Painting of MS Parts)	Surface Check	Pickling & Passivation / Painting	100%	As per scope/Drg.	Inspection report	W	R			
4 Document Verification											
4.A	Final Document Review	Major	Review of documents	100%	As per scope/Drg.	Equipment Dossier	P	R			
Note:- Wherever backchipping is not possible, Full Penetration root run welding to be carried out by GTAW process only.											
CDPS : CHEMDIST PROCESS SOLUTIONS PVT. LTD., R: REVIEW, W: WITNESS, P: PERFORM For, CHEMDIST PROCESS SOLUTIONS PVT. LTD. Plot No J-174/1, J-Block, MIDC, Bhosari, Pune-411026											
						Prepared by: RAHUL CHAVAN		Approved By: 