



QUALITY ASSURANCE PLAN FOR PRESSURE VESSEL

Kinam Engineering Industries

Manufacturer Name: Kinam Engineering Industries		Document. No: 2653/QAP01 Rev-0 Dated 29/11/2006		Key Codes: H= Hold Point, Fabrication stop until inspection has been performed or written release is given W=Witness, Advice of Inspection, Fabrication may be continued if inspector is not present after invitation given in due time. R= Review, P=Perform, A=Approval, RN = Random Witness.				
Client : DCW Ltd Consultant : UIL Inspection by: UIL		Code : ASME Sec VIII Div. I W.O. No.: 2653 ITEM :- Air Buffer Vessel						
TAG NO.		DRG. NO.		QTY.	L.O.I. NO.			
05D008		0118-MQ-UF-0178- Rev 0 Sheet 1 & Sheet 2		1	L/P/MO/MEC/HO/000207 Dt: 15/11/2006			
Sr. No	Stages of Inspection / Inspection Activity	Characteristics/ Properties to check.	Reference Document	Acceptance Criteria	Records	Inspection By		Remarks
						KEI	UIL	
1.	Documents	As per Doc No: 2653/QAP01 Rev0 a. Welding Procedures, W.R.T. Approved Drawing.	Approved Drg ASME Sec-IX, Ed 2001 Add. 2000	As per ASME Sec- VIII DIV-1 Ed 2004 ASME Sec-IX	Doc No: 2653/QAP01 WPS/PQR	P	A	Existing relevant WPS/PQR, will be reviewed In case any new WPS/PQR required, it will be done under UIL
1.1	QAP							
1.2	WPS & PQR					P	R/W	
2	Material Identification	a. Visual & Dimensional. b. Verification of Mill Test Report & correlation with Heat Marks & stamping, if available OR Check Test for Physical & Chem. Prop	Approved Drg	ASME Sec-II Part A	Inspection Report, Check Test Certificate	H	H	
2.1	Plates							



Document No. : 2653/QAP01 Rev-0 Dated .29/11/2006						Page No : 2 of 4		
Sr.No	Stages of Inspection / Inspection Activity	Characteristics/ Properties to be verified	Reference Document	Acceptance Criteria	Records	Inspection By		Remarks
						KEI	UIL	
2.2	Flanges	a. Visual & Dimensional. b. Verification of Manufacturer Test certificate & correlation with Heat Marks & stamping	Approved Drg	ASME Sec-II	Inspection Report, MFG. T.C.	W	R	Material to be proc. from Approved Vendor
2.3	Nozzle Pipes	a. Visual & Dimensional. b. Verification of Manufacturers T.C. Correlation with Heat Marks & Stamping / Check Test for Physical & Chem. Prop	Approved Drg	ASME Sec-II Part A	Inspection Report MFG. T.C. / CTC	H	H	
2.4	Fasteners	a. Visual & Dimensional. b. Verification of Manufacturer Test Certificate & correlation with Heat Marks & stamping	Approved Drg	ASME Sec-II Part A	Inspection Report, MFG. T.C.	R	R	Material to be proc. from Approved Vendor
2.5	Gaskets	a. Visual & Dimensional. b. Verification of Manufacturers TC	Approved Drg	<u>MOC</u> : As per Drg.	Inspection Report, MFG. T.C.	R	R	
2.6	Supports	a. Visual & Dimensional. b. Chemical Analysis.	Approved Drg	MOC: IS2062	Inspection Report, MFG TC/ CTC	H	R	



Document. No. : 2653/QAP01 Rev-0 Dated 29/11/2006						Page No : 3 of 4		
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						KEI	UIL	
3 3.1	Fabrication Stages Dishend forming	a. Visual & Dimensional Insp. b. D.P. Tets on Knuckle & S.F. c. Minimum Thickness.	Approved Drg	As per Drg / ASME Sec- VIII DIV - 1	Inspection Report	H	W	
3.2	Shell long seam setup	a)V-groove Dimensional & Joint alignment b) Curvature / Ovality c)Circumference & other Dimensions.	Approved Drg	As per Drg / ASME Sec- VIII	Inspection Report	H	RN	
3.3	Long seam back chip.	a. D.P. Test	ASME Sec V	ASME Sec- V	Inspection Report	H	RN	
3.4	Circumseam setup of main shell	a. V-groove Dimensional, Joint alignment & shell alignment b. Straightness	Approved Drg	As per Drg / ASME Sec- VIII Div-1	Inspection Report	H	RN	
3.5	Circumseam backchip of main shell	a. D.P.Test.	ASME sec V	As per Drg / ASME Sec- VII Div - 1	Inspection Report	H	RN	
3.6	Nozzle to Shell/ Dishend Setup	a. Nozzle Size & Flange dimensions b. V-groove Dimensions c. Orientation, Projection & Elevation	Approved Drg	As per Drg / ASME Sec- VIII Div - 1	Inspection Report	H	RN	
3.7	Backchip of Nozzle to Shell /Dishend	a. D.P.Test.	Approved Drg	ASME Sec-V	Inspection Report	H	RN	
3.8	Circumference Setup of Shell to Dishend	c. V-groove Dimensional & Joint alignment d. Straightness	Approved Drg	As per Drg / ASME Sec- VIII Div-1	Inspection Report	H	RN	
3.9	Circumference Back chip of .Shell to Dishend	a. D.P.Test.	ASME sec V	As per Drg / ASME Sec- VII Div - 1	Inspection Report	H	RN	
3.10	Radiography (Spot = . 'T' joints)	a. Weld Defects	Approved Drg & Sec. V	.As per ASME Sec- VII	Inspection Report	H	R	
3.11	Shell to Skirt Setup	a)V-groove Dimensional & Joint alignment b) Straightness	Approved Drg	As per Drg / ASME Sec- VIII DIV-1	Inspection Report	H	W	



Sr.No	Stages of Inspection / Inspection Activity	Characteristics/ Properties to be verified	Reference Document	Acceptance Criteria	Records	Inspection By		Remarks
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4 4.1	Final Inspection Visual & Dimensional before Hydro Test.	a. Visual & Dimension Check	Approved Drg	As per Drg / ASME Sec- VIII DIV – I	Inspection Report	H	H	
4.2	Hydraiulic test - shell side	a. Leakage b.Pressure Guage Test Certificate c. Hold Time – 1 Hr. Min	Approved Drg	As per Drg / ASME Sec- VIII Div – I (No leakage)	Inspection Report	H	H	
5 5.1	Surface treatment Mechanical cleaning finish & Painting	a. DFT Check – 25 Micros DFT	Approved Drg	As per Drg / ASME Sec-VIII DIV-1	Inspection Report	H	H	
6	Final Stamping on Eqpt.	a. Name Plate Data b. Rub Off Marking c. Spares & loose items bolted on job	Approved Drg	As Per Drg.	Rub Off	H	H	
7	Final Documentation	a. As built Drg b. NDT Records c. Heat Chart d. Rub Off	Approved Drg	As per Drg / ASME Sec-VIII DIV-1		H	R	

For, **KINAM ENGINEERING INDUSTRIES.**