

14/15, Sahakar vijay Industrial Estate, Navghar Road, Vasai (E) Dist. Thane – 401 210. Phone No. 0250- 2390504 / 2393950 Mobile No. 09821036410. E-mail :- sunilparikh1@bsnl.in, sunilparikh97@yahoo.in

Annexure-VII

QUALITY ASSURANCE cum INSPECTION PLAN

[For WELDED / SEAMLESS CS, AS, LT, SS FITTINGS]

[For WELDED / SEAMLESS CS, AS, LI, SS FITTINGS] Client : QAP NO :QAP / /STD/2011 REV.0										
Insp. : / TII						Date : 1.04.2011				
Ref. No	. :									
				I			SHEET 01	OF 01		
SR.NO.	OPERATION	CHARACTERISTIC	REF.DOC	FORM OF RECORD		TYPE OF CHECK	SCOPE OF INSPN.			
							тіі			
A	RAW MATERIAL IDENTIFICATION PIPES & PLATES	Verification of size Marking & correlation with mill TC	Applicable codes	Mill TC OR check test reports if any		Visual,dimensions verificationof marking with MTC & check lest if any	100% H	R		
В	INPROCESS CONTROL FORMING, FORM CORRECTION AND WELDING SET UP	Verification of form, shape,size & thk	As per ANSI, ASME codes, approved drgs & applicable specn.	, report s		Visual,dimensions, verification of profile& dimension	100% H	-		
	WELDING	Approved WPS/ PQR/ WPQ	ASME SEC. IX			Witnessing welding & testing	100% H	R		
	HEAT TREATMENT	Review of heat treatment records WLD. CS/LT FTGS = N AS FITTINGS = N&T HF FITTINGS SS FITTINGS = SA	A 234/A 420 A234 A234 A403	HT RECORDS	ORDS	Visuals & review	100% H	R		
	MACHINING	COLD FORMED FIGS: CS FTGS = N/SR SS FIGS = SA Verification of size & dimension	A234 A403 B16.9	nternal Ins	pection	Visuals & dimension	100% H	-		
	CLEANING & FINISHING									
	CS,AS,LT Fittings	Mechanical descating	A234/A 420			Visuals	100% H	-		
	SS FITINGS	Pickling & Passivative	A 403 Specn.			Visuals	100% H	-		
	Marking	Mail Specn.Heat No. Lot No. size Vendors monogram	A2 34/A 420 A 403 Specn.			Visuals	100% H			
с	DESTRUCTIVE TESTING TENSILI TLS:	One lest coupon from each material heat under same condition of heat treatment	A234,A420 & A 403	Laboratory	report	Witness/Security of report	100% H	R*		



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:	-	QAP NO :QAP / /STD/2011 REV.0				
: / TII	Dat	Date : 1.04.2011				
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	1	1	1	1	SHEET 0	1 OF 01
OPERATION	CHARACTERISTIC	REF.DOC	FORM OF RECO	RD TYPE OF CHECK	SCOPE OF INSPN	
					TII	
IMPACT TESTING (LICS FITTINGS)	1Set of test coupon from each heat of Raw Mat		Laboratory repo	ort Wellness/ Scrutiny of report	100% H	R
IGC PR 'E' (FOR SS FITTINGS)	1Set having highest thk & highest carbon per	A262Pr.E	Laboratory repo	ort Wellness/ Scrutiny of report	100% H	R
Grain Size Test (For H Grade Fittings)	1Set having highest thk& highest carbon per HT lot	Applicable Specn	Laboratory repo	Wellness/ Scrutiny of report	100% H	R
NON DESTRUCTIVE TESTING ALL WELDED FITTINGS	Review of 100% Radiography	ASME Sec. V ASME Sec,VIII Div. I UW51			100% H	R** [10%
	DP/ MPI on BW end	ASME Sec. V ASME Sec,VIII	DP / MPI repoi	rts Visual	100% H	R
FINAL INSPECTION	Checking for dimensions, surface finish, marking. code stamping by & CFCL / TII stamping	A234, A420,A403. B16.9			100% H	R
CERTIFICATION	Certification of chemical (heat & product analysis from lab.), physical specn, size, sch,qty & other lest reports	B16.9			100% H	H [10%
DESPATCHING	Packing suitably to avoid transit damages marking each cartoon. for proper identification	CLIENTS PO			100% H	
	Deprive of the second s	OPERATION CHARACTERISTIC IMPACT TESTING (LICS FITTINGS) 1Set of test coupon from each heat of Raw Mather (FOR SS FITTINGS) IGC PR 'E' (FOR SS FITTINGS) 1Set having highest thk & highest carbon per Grain Size Test (For H Grade Fittings) 1Set having highest thk & highest carbon per HT lot NON DESTRUCTIVE TESTING ALL WELDED FITTINGS Review of 100% Radiography DP/ MPI on BW end DP/ MPI on BW end FINAL INSPECTION Checking for dimensions, surface finish, marking, code stamping by & CFCL / TII stamping CERTIFICATION Certification of chemical (heat & product analysis from lab.), physical specn, size, sch,qty & other lest reports DESPATCHING Packing suitably to avoid transit damages marking each cartoon.	OPERATION CHARACTERISTIC REF.DOC IMPACT TESTING (LICS FITTINGS) 1Set of test coupon from each heat of Raw Matt Applicable Specn IGC PR 'E' (FOR SS FITTINGS) 1Set having highest thk & highest carbon per A262Pr.E Grain Size Test (FOR H Grade Fittings) 1Set having highest thk& highest carbon per HT lot Applicable Specn NON DESTRUCTIVE TESTING ALL WELDED FITTINGS Review of 100% Radiography ASME Sec. V ASME Sec. VIII Div. 1 UW51 P/ MPI on BW end ASME Sec. VIII Div. 1 UW51 ASME Sec. VIII Div. 1 UW51 FINAL INSPECTION Checking for dimensions, surface finish, marking, code stamping by & CFCL / TII stamping A234, A420, A403. B16.9 CERTIFICATION Certification of chemical (heat & product analysis from lab.), physical specn, size, sch, qty & other lest reports A234, A420, A403. B16.9 DESPATCHING Packing suitably to avoid transit damages marking each cartoon. CLIENTS PO	N:: OPERATION CHARACTERISTIC REF.DOC FORM OF RECO IMPACT TESTING (LICS FITTINGS) 15et of test coupon from each heat of Raw Mat Applicable Specn Laboratory report IGC PR 'E' (FOR SS FITTINGS) 1Set having highest thk & highest carbon per A262Pr.E Laboratory report Grain Size Test (For H Grade Fittings) 1Set having highest thk& highest carbon per HT lot Applicable Specn Laboratory report NON DESTRUCTIVE TESTING ALL WELDED FITTINGS 1Set having highest thk& highest carbon per HT lot ASME Sec. V ASME Sec. VII Radiography re & radiography re & radiography FINAL INSPECTION Checking for dimensions, surface finish, marking, code stamping by & CFCL / TI stamping A234, A420, A403 B16.9 Final offer list a other relevan documents CERTIFICATION Certification of chemical (heat & product analysis from lab.), physical specn, size, so, dty & other lest reports A234, A420, A403 B16.9 Certificates i Test Reports DESPATCHING Packing suitably to avoid transit damages marking each cartoon. CLIENTS PO LR, invoice, cha despatch file e	Image: Section of the secting secting the section of the section of the section	N:: SHEET O OPERATION CHARACTERISTIC REF.DOC FORM OF RECORD TYPE OF CHECK Scope of Til IMPACT TESTING (LICS FITTINGS) 15et of test coupon from each heat of Raw Math (LICS FITTINGS) 15et having highest thk & highest carbon per Applicable Speen Laboratory report Wellness/ Scrutiny of report 100% H GC RR 'E' (FOR K Grain Size Test (For H Grade Fittings) 15et having highest thk& & highest carbon per HT lot highest carbon per HT lot highest carbon per HT lot Applicable Speen Applicable Speen Laboratory report Wellness/ Scrutiny of report 100% H NON DESTRUCTIVE TESTING ALL WELDED FITTINGS Review of 100% Radiography ASME Sec. VI ASME Sec. VII Div. I UWS1 Radiography report & radiographs Review of radiographs 100% H FINAL INSPECTION Checking for dimensions, surface finish, marking, code stamping by & OFL IT it stamping to as the reports A234, A420, A403 B16.9 Final offer list and other relevant documents Visual and Dimensions 100% H CERTIFICATION Certification of checking for dimensions, surface finish, marking, code stamping by & other lest reports Certificates & B6.9 Certificates & B6.9 Verification 100% H DESPATCHING Packing suitably to avoid transit damages marking each catoron, CLIENTS PO LR, invoice, challan despatch file etc Verification

ANY AS PER PRIOR SE 2. Type of Process

1) Seamless Construction - Size up to 16'NB

2) Welded Construction - Size above 16'NB

3. In case physical tests for a particular ID No. have been conducted under any Third Party Inspection agency, those shall be

offered for review and acceptance by /TII

4. 100% Radiography welded fittings will be reviewed / interpreted by ASNT Level II person by Tube Innovatives India & 10% by /TII basis on random basis.

ABBREVIATION:

V- VISUAL, R- REVIEW, I- IMPERINGUE, NORMALIZING, SA- SOLUTION ANNEALING, SR- STRESS RELIVING, D- DIMENSION, LR- LABORATORY REPAIR W- WITNESS, S- SCRUTINY OF REPORT, H-HOLD. TUBE INNOVATIVES (INDIA)

TUBE INNOVATIVES (INDIA)

